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The West Virginia MEDICAL JOURNAL

Published by The West Virginia State Medical Association

Be ashamed to die until you have won a victory for humanity.
—Horace Mann

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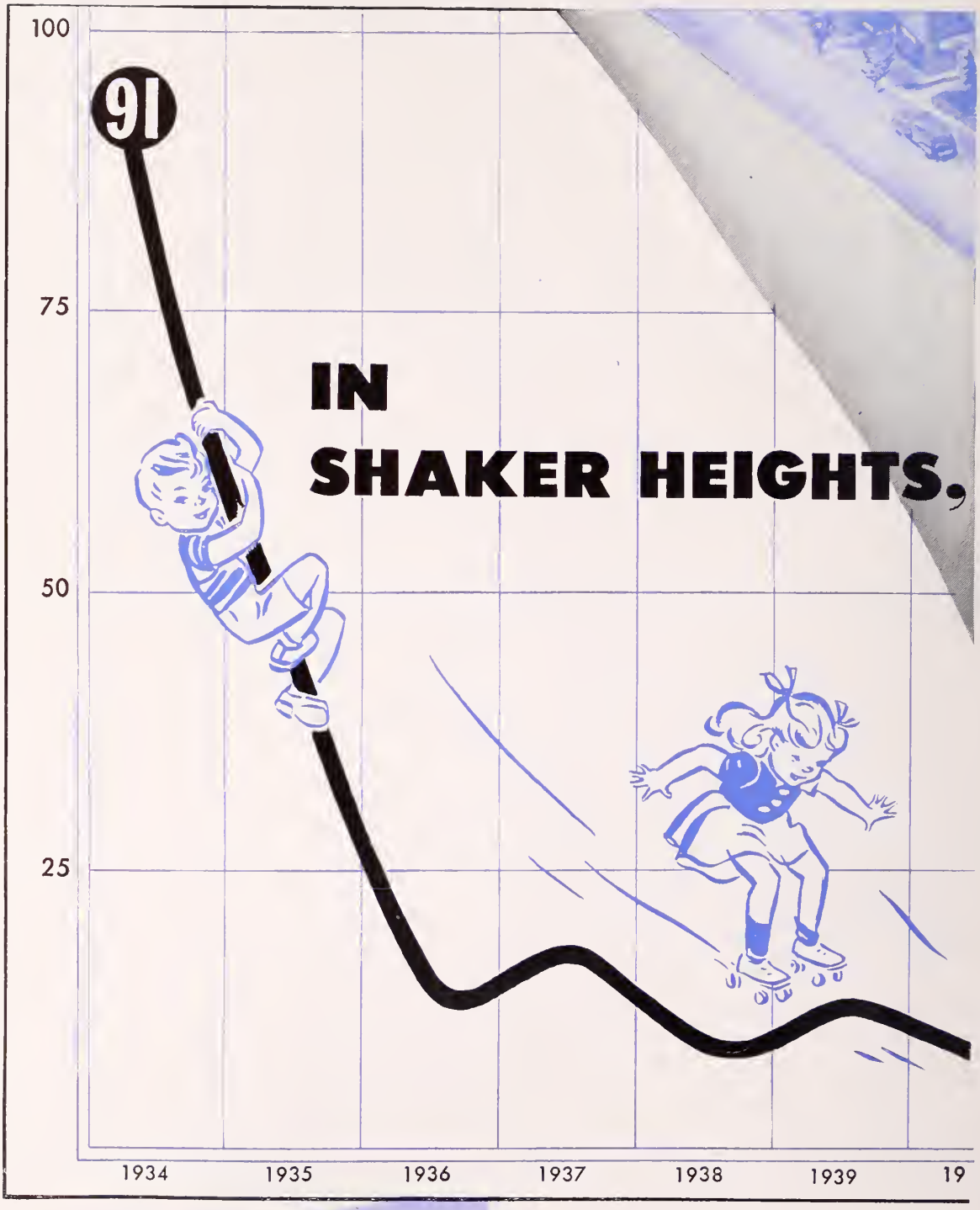

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THE WEST VIRGINIA MEDICAL JOURNAL

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII JANUARY, 1946 No. 1

MANAGEMENT OF THROMBOPHLEBITIS

By CHARLES D. HERSHEY, M. D.,
and RUSSELL B. BAILEY, M. D.*
Wheeling, West Virginia

There is nothing so disquieting to the peace of mind of the surgeon as the sudden appearance in an otherwise normally convalescing patient of a progressing phlebitis, and this sense of foreboding reaches its climax with the terrifying appearance of surgery's greatest catastrophe, pulmonary embolism. In the past, we have been content to treat these things as conditions imposed upon us for which there was little remedy, sitting helplessly by the patient's bedside and trusting to a Divine Providence that the dreadful sequelae feared would not occur. With the advent of heparin and dicumarol, some hope was given that these conditions might be controlled, and indeed, these preparations have been of great benefit. It has been only within the last few years that a direct surgical approach has been advocated, not only for the treatment of thrombophlebitis, but also for the prevention of embolic phenomena. This new concept has resulted from a careful evaluation of the physiological processes which take place in the phlebitic extremity and of the anatomy of the part, with particular reference to the collateral venous circulation.

Since advances in physiology have paved the way to the modern approach to this condition, let us briefly consider the physiological alterations which take place in the phlebitic extremity. First of all, what factors are responsible for the edema which is present in thrombophlebitis? It has been demonstrated that there is an increased venous pressure present. This is due to the mechanical blocking of the vein, and to the fact that the valves have been destroyed, permitting a back-flow of blood into the lumen of the vein. This increased venous pressure results in an increased filtration pressure with extravasation of fluid from the vein into the perivascular tissue. There is evidence that venospasm also plays a considerable part in this respect. This is only one of the factors producing the edema, however, and the others are due to the arteriospasm which invariably accompanies this disease. It is here that the sympathetic nervous system makes its entrance. Afferent sympathetic fibers pass along the vein wall in an upward direction where they synapse in the lumbar ganglia, and from there the efferent sympathetics carry impulses to the walls of the arteries and arterioles of the extremity. In thrombophlebitis and phlebothrombosis alike, pain stimuli pass up the afferent sympathetics and result in vaso-constrictor stimuli passing down the efferent sympathetics to the arteries and resulting in arteriospasm. This results in a diminution in blood flow to the extremity, and the second cause for the edema, tissue anoxia. The decrease in blood flow produces an anoxia of the capillary endothelium that increases its permeability, permitting excessive exudation of fluid into the perivascular spaces. Once the fluid gets out of the vascular channel in such a case, it has difficulty in getting back because of the increase in pressure on the venous side. The third factor producing edema is the retardation of lymph flow, which is always present. It has been repeatedly demonstrated that the movement of lymph is dependent upon the pulsations of the arterioles. As Ochsner has so aptly put it, "In the presence of marked venospasm and increased venous pressure, arteriolar pulsations are reduced to a minimum, and the lymphatic pump is thereby lost." Thus a vicious circle is set up, with the accumulation of proteins in the perivascular tissues.

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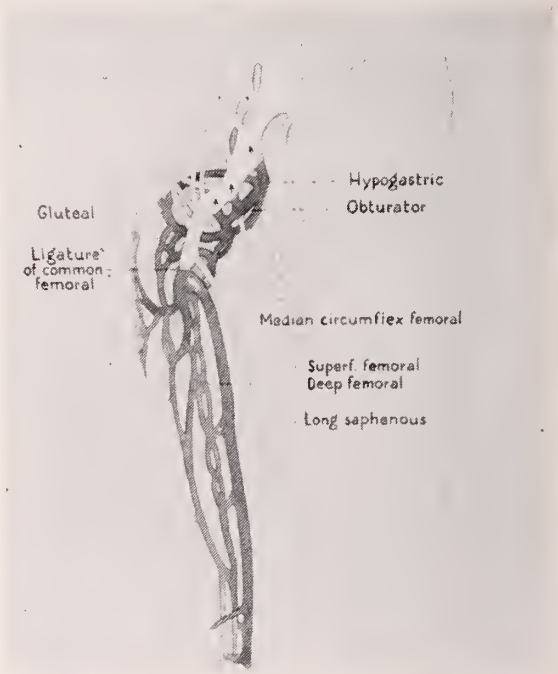
The pressure of the fluid outside the vessels approaches that of the fluid within the vessels, preventing the absorption of fluid from the tissues of the extremity. It is obvious, therefore, that anything that will increase the blood flow to the extremity will break this vicious cycle. Novocaine block of the sympathetic ganglia will do this by eliminating the vasoconstrictor impulses of the efferent sympathetics. This has the disadvantage of being temporary, and must be repeated at least once daily if it is to be of benefit. The more logical and permanent approach to the problem would be some procedure directed toward discontinuing the pain stimuli coming from the thrombosed vein by way of the afferent sympathetic fibers of the vein wall to the lumbar ganglia. Only recently has it been realized that this can be accomplished by ligation of the vein and preferably interrupting its continuity above the level of the thrombus. This has proved its efficiency in clinical practice. In almost all of our patients in whom we have employed vein ligation, the increased warmth of the extremity has been very easily noted merely by palpitation, and it has not been necessary to take skin temperatures upon these patients.

Whenever ligation of the deep vein has been proposed, the first question to be raised is: What happens to the venous return from the extremity after the main vein has been ligated? After an exhaustive anatomical study of the collateral circulation of the femoral, iliac, and vena caval systems, we find that Nature has been very kind to us indeed.

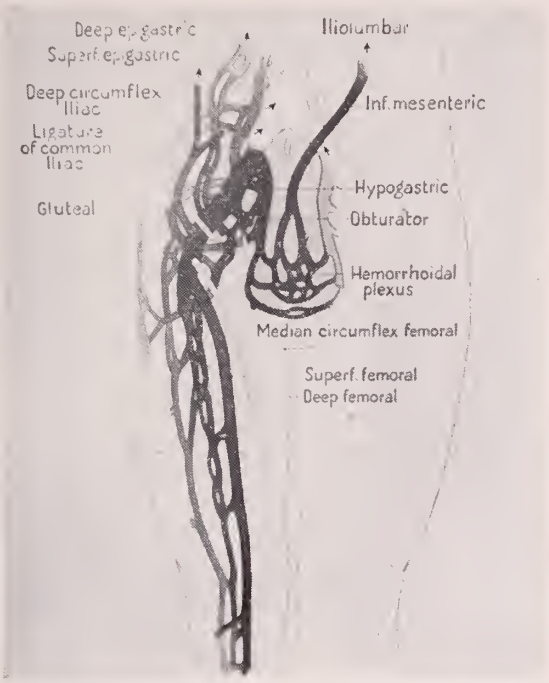
Figure 1 shows the ligature placed around the common femoral vein with the collateral circulation present. The common femoral vein is only approximately one and one-half inches in length and extends from the inguinal ligaments downward to the point where the profundus femoral branches off from it. From there on downward the femoral is known as the superficial femoral, passing through the adductor canal until it becomes the popliteal vein after passing through the adductor hiatus into the popliteal space. The profundus femoral is an entirely muscular division of the common femoral and has many ramifications in the muscles of the thigh. The femoral vein may be ligated at the level of the common femoral or the superficial femoral below the profundus, but the clinical findings will determine entirely which of these two sites should be selected for the ligation. In some instances the internal saphenous vein may also be involved along with the deep vein, and in these cases it is necessary to ligate the femoral just above the saphenofemoral junction. If the condition is diagnosed early before the clot has had an opportunity to propagate higher than the superficial femoral vein, then the superficial femoral may be ligated below the point where the profundus enters it. This, we feel, is to be preferred because the collateral is somewhat better at this level and the edema will subside more quickly.



(Fig. 1.) A diagrammatic sketch showing the nature of the venous return from the right leg and the collateral circulation when the common femoral vein is interrupted.

Some men prefer, as advocated by Bancroft, embolectomy carried out through the common femoral vein. In this procedure, the common femoral is opened and a rubber catheter or glass rod connected to a suction apparatus is inserted upward into the iliac system, and any clot in the iliac is removed by suction. Following this, the vein is doubly ligated above and below the opening made in it. This procedure has many merits, particularly in view of the fact that it can be done under local anesthesia, whereas ligation above the clot in the common iliac or vena cava requires a general or spinal anesthetic. We feel that this is the procedure of choice in the extremely poor risk patient with a clot extending above the common femoral vein, but prefer higher ligation if the patient's general condition will tolerate an anesthetic.

As more experience was gained with vein ligation in thrombophlebitis, higher levels of ligation were selected in order to place the ligature above the thrombosis. Figure 2 shows the very much more abundant collateral venous circulation when the

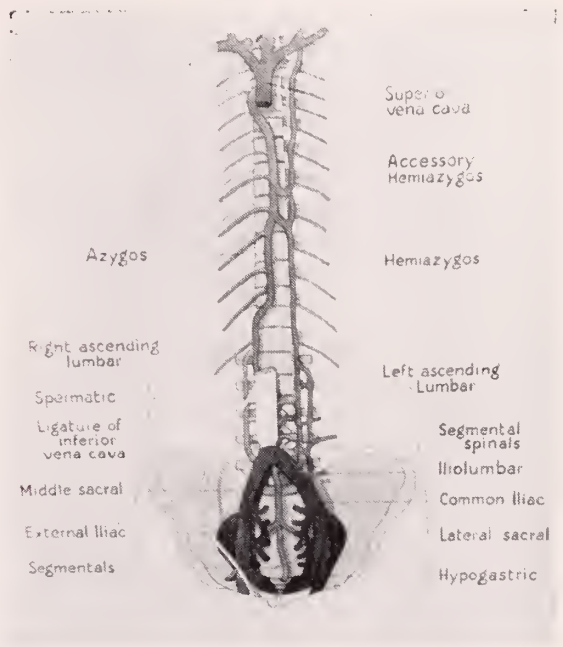


(Fig. 2) A diagrammatic sketch as in Figure 3, showing the very much more abundant collateral venous return when the common iliac vein is interrupted.

common iliac vein is interrupted. This has been borne out by our clinical experience as we have found that in patients upon whom we have ligated the common iliac vein the edema has disappeared much more spectacularly and the symptoms have regressed much more quickly than in patients upon whom a lower ligation has been carried out. This is the level of ligation to be preferred when the thrombosis has extended up into the external iliac veins as evidenced by swelling involving the thigh as well as the lower leg and accompanied by tenderness over the femoral vein in the region of the inguinal ligament.

In some patients it is necessary to ligate at even a higher level because of either the extent of the thrombophlebitis, the condition of the patient, or the pathological condition present. Figure 3 shows the collateral circulation when the vena cava is ligated just above its bifurcation. This, at first, would seem a very radical procedure, but as experience has progressed with this treatment we have lost our timidity with it and will unhesitatingly ligate the vena cava if indications for such a procedure exist. Here again a very rich collateral circulation is present. The main collateral is through the vertebral veins which lie upon the dorsal surface of the bodies of the vertebrae and make up a very extensive and large plexus of veins. The venous blood passes to the vertebral system through the middle sacral, the lateral sacral which pass through the foramina of the sacrum, and the ascending lumbar veins. The vertebrals then join both the inferior vena cava directly and also the superior vena cava through the azygos and hemiazygos veins. Thus there is a collateral to both the inferior and superior caval systems. Ligation of the vena cava is indicated when there is a bilateral thrombophlebitis extending up into both iliacs and also when there is an extensive pelvic thrombophlebitis present. It is also indicated in certain poor risk patients with a one sided thrombophlebitis, due to the fact that the vena cava is easier to ligate than the common iliac vein and can be done much more quickly and with less exposure.

One cannot emphasize too strongly the early diagnosis of thrombophlebitis and the signs and symptoms manifested by the disease. It has only recently been realized that the condition usually begins in the veins of the foot and calf and that involvement of the thigh and the pelvic veins occurs usually by extension from the former two sites. The first subjective symptom is usually pain in the foot or in the calf



(Fig. 3) The Vena Cava and its collateral circulation.

muscles. The patient will frequently say that there is a cramp in the sole of the foot. A most useful sign in the diagnosis of early thrombophlebitis is that described by Homans. This consists of dorsiflexing the foot with the knee at slight flexion and results in a stretching of the calf muscles and pressure upon the veins of the calf. If thrombophlebitis is present, the patient will complain of pain in the calf. This

sign is frequently positive even before there is any swelling of the lower extremity. The examiner may also elicit tenderness over the calf and in the plantar aspects of the foot. Later swelling appears and in any patient suspected of having a thrombophlebitis the diameter of both lower legs and of both thighs should be measured. The swelling usually begins in the ankle or calf and then may extend upward into the thigh. There also may be some reddening of the skin and some temperature elevation. This varies with the type of disease; that is, whether it is a thrombophlebitis or phlebothrombosis. In phlebothrombosis one can frequently notice a cyanosis of the extremity when the lower leg is allowed to hang down over the bed. This clears upon elevation. If edema extends into the flank it is indicative of an extension of the thrombosis to the common iliac or vena cava. Very frequently one can notice a diminution in the dorsalis pedis pulse in the involved extremity due to the vasoconstriction which is produced reflexly by the sympathetic nervous system. There may be tenderness over the course of the femoral vein, particularly in Scarpa's triangle and in the external iliac vein immediately above the inguinal ligament. It is not at all uncommon for the patient to have a pulmonary embolus before there is any evidence of swelling of the leg. Until a few years ago treatment of deep thrombophlebitis consisted of elevation and immobilization of the extremity with the application of heat. This treatment was supplemented by paravertebral blocks performed at frequent intervals and with the use of heparin and dicumarol. Because of the ever present danger of embolism, the long period of hospitalization required in the treatment of the acute condition, and the poor end result in so far as permanent edema, pain, and ulceration are concerned, we have discarded this method of treatment in recent years and employed vein ligation entirely. We have ligated the superficial femoral, the common femoral, the common iliac, and the vena cava, and have had no mortality which could be attributable to these operations. In the acute conditions the results have been uniformly excellent. There has been a diminution of swelling in all instances. The patients have noticed an almost immediate disappearance of pain. We have had an entire disappearance of severe swelling of both the calf and the thigh within three days after a common iliac ligation. Previous to ligation in this case there were two inches of swelling of the thigh and one inch of swelling of the calf. This patient was again seen one year following the ligation, at which time there was no swelling and no signs of symptoms of the previous very extensive thrombophlebitis involving the iliac veins.

The level at which the ligation is done is a very important one, and is determined usually preoperatively by the signs which are revealed by a very careful examination. If the thrombophlebitis is detected very early, the swelling is not great and is limited to the leg below the knee, and if there is no tenderness over the femoral vein just below the inguinal ligament, we prefer ligation of the superficial femoral vein just below the profundus. This is easily performed under local anesthesia with a longitudinal incision over Scarpa's triangle. The artery is carefully separated from the vein and two ligatures are placed around the vein, just below the profundus. The lower ligature is tied and a longitudinal opening is then made in the vein between the two ligatures. If there is no clot in the vein, a brisk flow of blood occurs. The upper ligature is tied and the vein transected between the ligatures. However if a brisk flow does not occur or if a clot is easily seen in the lumen of the vein, then the clot is extracted and a catheter is passed upward through the lumen of the vein while continuous suction is applied to the catheter. The catheter is then withdrawn. If any clot is present in the external iliac, it can be removed with the suction. This is repeated until a brisk flow of blood appears and then the upper ligature is tied and the vein transected. If there is any evidence of involvement of the profundus vein, then the femoral should be tied just above the profundus; in other words, a common femoral ligation. The residual swelling will be much less, however, if the ligation can be carried out below the profundus. If, on the other hand, a swelling above the knee is demonstrated by measurement or if, in a patient with swelling limited to the lower leg, there is tenderness over the femoral vein in the groin, we feel that ligation should be carried out at the level of the common iliac vein. This is a somewhat more extensive procedure. The operation is carried out through a high inguinal type of incision extending into the flank. It is muscle splitting in type and the operation is entirely retroperitoneal. The common iliac vein is identified and one or two heavy silk ligatures are placed around it just below the bificuration of the vena cava. Ligation of the left common iliac is a much more difficult procedure because on the left side the vein lies medial and posterior to the artery, making its exposure difficult, and the danger of bleeding is greater. On the right side the common iliac vein lies lateral to the artery and is rather easily exposed. With retroperitoneal exposure of the ves-

sels we have had no postoperative shock and the patients have all tolerated it well.

The main indication for ligation of the vena cava is in bilateral thrombophlebitis with extension of thrombi into both iliacs. It is also recommended in poorer risk patients with unilateral disease because of the ease of exposure of the vena cava as compared with that of the common iliac vein. We have ligated the vena cava in one patient having thrombosis extending up into the iliacs on the left side. She had had two large pulmonary emboli upon successive days and was in very poor condition. Ordinarily, a left common iliac ligation would have been done. But it was felt that the exposure and time required to do this was prohibitive in respect to this patient's general condition. The vena cava was then ligated above its bifurcation through a muscle splitting incision in the right flank just above the anterior-superior spine of the ilium and the vena cava exposed retroperitoneally. The exposure is very easy and the entire operation can readily be done in fifteen or twenty minutes. In this case a spinal anesthetic was employed. Postoperatively, there developed an increase in warmth in the diseased extremity and a very marked coldnes in the normal extremity. However, after twenty-four hours the normal extremity also became warm. This was apparently due to the fact that the normal extremity had not yet developed its collateral circulation and that twenty-four to thirty-six hours were required for such collateral to develop. At the time of her discharge from the hospital the patient had only minimal edema of both legs, although she has had some intermittent edema since then. She had no more pulmonary emboli after the vena caval ligation.

When it is realized that one out of every 17 patients with thrombophlebitis will have a fatal pulmonary embolus and that one out of every three patients will have at least one embolus of varying degree, the value of vein ligation in preventing emboli is appreciated. Parker, Nygaard, Walters, and Priestly of the Mayo Clinic found that patients with multiple episodes of pulmonary embolism terminate in a fatality in about sixty per cent of instances. They also found that in all cases of fatal embolism the final attack was preceded by one or more nonfatal attacks in 36 per cent. We have had no emboli appear following vein ligation. The period of hospitalization is also greatly reduced when this condition is treated by ligation. With ligation of the femoral vein the patient can be allowed out of bed on the following day. When the common iliac or vena cava is ligated through a muscle splitting, extraperitoneal approach, the patient can be allowed out of bed on the fourth or fifth postoperative day and discharged home shortly thereafter.

Up until now we have been speaking of the acute thrombophlebitis and have said nothing about patients presenting themselves with old, chronic thrombophlebitis of one or both of the lower extremities. These are the patients who present themselves with a chronically swollen leg and many of these are complicated by stasic dermatitis, stasic ulcer, or cellulitis. We hesitated at first to employ ligation of the deep veins in these patients because of the long-standing nature of the disease. However, during the past eight months we have been ligating the femoral or common iliac veins of these patients with uniformly good results. In patients with swelling limited to the lower leg the femoral vein has been the site of ligation. In those patients with swelling extending into the thigh we have ligated the common iliac vein. With our experience in chronic thrombophlebitis to date, we feel that we can promise these patients certain things. First of all, the pain and heavy sensation which these individuals had in their legs have entirely disappeared in every case. We cannot promise a disappearance of the swelling. In most of the individuals there has been a decrease in the swelling. We feel that ligation of the vein will prevent the other sequelae of chronic thrombophlebitis, namely, ulceration, dermatitis, and cellulitis. Before the deep vein is tied it is very important that any varicosities of the saphenous system be eradicated by ligation, and if necessary, injection, since these may be the cause of the ulceration or dermatitis.

In conclusion, it has been our policy to treat all cases of acute thrombophlebitis and many of the cases of chronic thrombophlebitis by ligation of the deep venous system. We have adopted this method of therapy because it will prevent embolism and the late sequelae of thrombophlebitis, namely, swelling, ulceration, dermatitis, and cellulitis. The results to date have been good in all cases, and we believe that in the future its extended use will save many lives and prevent the late complications of the disease.

TB OUT-PATIENT SUPERVISION

The average patient has a great deal of confidence in his private physician and expects him to treat tuberculosis much as he would accept other family medical emergencies. Sanatorium care is no longer the only method of tuberculosis control. Many minimal lesions and a limited number of inactive advanced lesions are amenable to out-patient supervision. This supervision and care can often be rendered by the alert general practitioner who possesses modern knowledge of the diagnosis and treatment of tuberculosis.—Herman E. Hilleboe, M. D., U. S. Public Health Service.

A NOTE ON THE OCCURRENCE OF SILICOSIS IN BITUMINOUS COAL MINERS

By MAURICE J. SMALL, M. D.
Parsons, West Virginia

It does not seem to be generally known that silicosis occurs rather frequently in miners operating coal cars in bituminous mines as well as among anthracite miners, granite and sandstone cutters. I recall that I was quite surprised when I first began to observe typical roentgen findings of silicosis in this vicinity several years ago, and today when I describe this occurrence to recognized chest specialists I am greeted with the raised eyebrow of skepticism or amazement. That this occurrence is not rare is apparent from the fact that in the past four years we have collected, in a private practice in an area in which the mines are comparatively small, ten cases in which the clinical and roentgen findings have been typical. Two of these developed silico-tuberculosis. In one of the latter cases I had the privilege of performing postmortem examination. The tissues were sent to the National Institute of Health; pathological examination confirmed the clinical diagnosis and chemical examination revealed over 30 per cent silica. Many of these cases were subjects of court litigation for compensation, their films made and seen by specialists from many parts of the country, and their compensation awards won.

For some time we were puzzled as to why silicosis should occur in soft coal miners, since it is known that inhalation of carbon dust alone does not produce silicosis. As we began to collect more of these cases we found one factor common to all of them: They all "worked on the motor," that is, they operated the cars that hauled the coal from the pit to the surface. The grade being quite steep in this ascent, sand is sprinkled on the wheels to increase traction, and this is ground into a heavy cloud of dust of sufficiently small particle size to cause silicosis. This hazard has been recognized by the coal companies and in recent years masks have been issued to the miners thus exposed. However, new cases continue to appear, perhaps to some extent because the miners are delinquent in wearing their masks constantly, and I believe that if others working in coal mining regions are on the alert for cases of silicosis in coal car operators, many more will be found. This will be particularly true if a chest film is obtained in every miner complaining of cough or dyspnea, no matter how slight, if a history of "working on the motor" or near it can be elicited.

In this connection it is interesting to note that Pendergrass[1] in a recent issue of The Journal of the A.M.A. reports one atypical case among five of benign pneumonoconiosis due to finely divided iron dust from metal grinding. This one case, unlike the others, had symptoms referable to the respiratory tract and a chest roentgenogram highly suggestive of silicosis. The diagnosis of silicosis, however, is questioned in this case because this patient "never mined coal." He had, however, been "a coal car operator," and it would be interesting to know if the above explanation is pertinent in this instance. Although this patient did not develop respiratory symptoms until sixteen years after having left the mines, this interval in our experience is not incompatible with the diagnosis of silicosis.

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1. Pendergrass, E. P., and Leopold, S. S.: Benign Pneumonoconiosis, J.A.M.A. 127: 701-705 (March 24) 1945.

NOTE: The early part of this work was done in association with Dr. Samuel Weisman, now in the armed services.

INFLUENZA VACCINE AVAILABLE

Influenza vaccine of the kind now being given to all Army personnel will be available for civilian use this winter.

The vaccine is effective against Types A and B influenza. These are the types which have caused epidemics in recent years. Other types of influenza virus exist. Authorities do not know whether the world-wide influenza epidemic in 1917-1918 was due to A or B virus or to some other type.

Army studies, prior to the general vaccination order, showed that about 75% of those vaccinated were protected against influenza during outbreaks which occurred soon after the vaccination. How long the immunity, or protection, lasts is not definitely known.

The vaccine is given by hyperdermic injection of a single does of one cubic centimeter (about one-fourth of a teaspoonful).

The vaccine is made from influenza virus grown on chick embryo. The following firms have been manufacturing the vaccine: Lederle, Squibb, Sharp and Dohme, Lilly, Pitman-Moore and Parke-Davis. Some manufacturers have already applied to the National Institute of Health here for licenses to manufacture the vaccine for civilian use. It is expected that firms which have not yet made the vaccine may do so in the future.—Science Digest.

NEW TREATMENT FOR ATHLETE'S FOOT

A new remedy and preventive of athlete's foot has been announced by the Navy Department. Chief active ingredient is undecylenic acid, a fatty acid found in sweat.

This acid, its zinc salt and ordinary talc are mixed into a dusting powder for prevention of athlete's foot and treatment of mild cases. Undecylenic acid and zinc undecylenic in a carbowax base, with water, propylene glycol and triethanolamine make an ointment for more severe cases of the fungus infection of foot and groin.—Science Service.

PITFALLS IN LOCALIZING INTESTINAL OBSTRUCTION WITH THE SCOUT FILM

CASE REPORT

By GEORGE VASH, M. D.,
KARL J. MYERS, M. D.,
and HU C. MYERS, M. D.
Philippi, West Virginia

In 1911 Schwarz[1] advocated scout radiography of the abdomen for diagnosing intestinal obstruction. Since then the method has been widely acclaimed as having significant diagnostic value. Hoesslin[2] and Assmann in Germany and Case[3] in this country corroborated the work of Schwarz. Kloiber,[4] Milhaud,[5] Weil[6], and Bensaude-Guenaux[7b] first worked out the details of this method. The procedure did not receive widespread recognition, however, until Meyer and Braus,[7a] Alton Ochsner[8 9], Rabnin and Carter[10 11], and Wangensteen[12 13 14] proved authoritatively that "a single scout film of the abdomen made with the patient lying supine affords indispensable information in determining whether gaseous distention is present and in indicating what segments of bowel are distended." Experimental work done by Swenson and Hibbard[15] supported the conclusions of these clinicians.

In the differential diagnosis of large and small bowel obstruction, Wangensteen[14] (page 102) says that "the distention of acute obstruction of the large bowel is limited usually to the colon" and explains that "the ileocecal sphincter and valve operate in the manner of a checkvalve, permitting gas and fluid from the small intestine to be swept into the colon, but having once entered, their re-entry or regurgitation into the small bowel is prevented by the sphincteric mechanism." This author admits, however, that there may be a congenital insufficiency of the ileocecal valve which will allow regurgitation of gas and fluid. According to Wangensteen, "the obstruction of the small bowel can usually be readily distinguished by the occurrence of frequent and copious vomiting and by the distended loops of small intestine seen in the skiagram."

Teitelbaum[16] also emphasizes that "the x-ray diagnosis of obstruction depends upon the visualization of distended intestinal loops. All speculation concerning the site and nature of the block centers around the relative distribution of distended and collapsed segments." In this author's opinion, however, Wangensteen's position that regurgitation from the colon into the small intestine is rare, is probably untenable. "The small bowel dilatation, although usually much less than that of the colon, may so predominate when the lesion is in the cecum or ascending colon that a mistaken diagnosis of bowel obstruction will result."

Paine,[17] Wigby-Cochran,[18] McKittrick,[19] Haworth and Garland,[20] Charles E. Rea,[2], Eliason-Johnson,[22] and Lofstrom-Noer[29] accept without reservation the accuracy of the localizing value of gaseous distention. Criticism of this method of localization was first voiced by Wynen[25] in 1926 who remarked that "roentgenograms demonstrating fluid levels are more valuable than those in which only accumulations of gas can be shown." In the majority of experimental small bowel ileus, this author says that there is "an accumulation of gas in the colon distal to the obstruction. This is undoubtedly due to a reflex dilatation of the colon."

N. S. Zeithlin[26] calls attention to possible mistakes occurring when the gas content of the bowel is used for localization. In an old individual, for instance, with a redundant colon, the obstruction may be low in the sigmoid and there may be small bowel distention. "Another type of case, which has presented considerable trouble, is that with diminished colon gas." Gas alone in the small bowel is not sufficient to warrant a diagnosis of obstruction. Distention is also essential. Films must be repeated if necessary.

Rigler and Lipschultz[27] think that most cases of obstruction are of the closed loop type; that is, the ileocecal valve remains competent and hence there is little or no distention of the small intestine. They warn, however, that "the signs found in scout films of the abdomen have none of the specificity of the ordinary type of roentgen examination of the gastro-intestinal tract with contrast media." Lesions of the cecum or indirect pressure upon the small bowel by tumors of the colon may cause small bowel distention. When considerable distention of the small bowel is present together with large intestine distention, these authors recommend rapid deflation by means of suction through a Miller-Abbott tube. Another scout film is then made and shows only large bowel distention. This gives an important differential point between small and large bowel obstruction. "In many instances of obstruction of the colon, however, the occlusion is incomplete, permitting small amounts of gas to pass into the colon distal to the lesion."

Pendergrass[21] calls attention to abnormal gas shadows caused by morphine withdrawal in addicts, by peritoneal irritations, dysentery, bacterial infections, nutritional deficiency, and rupture of a graafian follicle. This author says, however, that confirmation of a diagnosis of colonic obstruction rests upon the finding of gas shadows limited to the colon.

Solis and Levine[28] call attention to the fact that

"enemas administered prior to roentgen ray examination may produce fluid levels which may be falsely interpreted." Gas plus fluid levels, in the opinion of these authors, constitutes the only reliable criterion of small bowel obstruction.

Ascroft and Samuel [23] call attention to the fact that the colon may be filled with feces, causing the characteristic gas shadows to be absent. This is said to be especially true of the descending colon because it is prone to distend less than the rest of the large bowel. Also, distention of the descending colon may escape notice when it is overlapped by a loop of transverse colon. In a case report, these authors call attention to a diagnosis of obstruction of the splenic flexure made in a 58 year old male because marked distention reached only to this point. A cecostomy was done, but it failed to function. When the patient died, autopsy revealed a carcinoma of the rectosigmoid junction.

CASE REPORT

A 57 year old white male was admitted to the hospital on Decemer 1, 1944, with a complaint of pain in the abdomen, bloating, nausea and vomiting. These symptoms had been present for two weeks. Four days before admission, the patient ceased to have bowel movements and even failed to pass gas the day he was admitted to the hospital.

The patient was a chronic alcoholic and had been treated for syphilis, but still had a positive serology.

Physical examination revealed a markedly distended abdomen, slightly tender throughout, and several nodules of varying size in the rectum. A scout film taken with the patient erect and the central ray horizontal showed a marked distention of the loops of the jejunum and ileum with no gas in the colon. (Fig. 1). This gave us the impression that there was a small bowel obstruction. Several attempts to pass a Miller-Abbott tube beyond the pylorus failed completely. The tube curled up in the stomach even when a stylet was used.

Blood chemistry showed a blood urea nitrogen of 87 mg. per 100 cc., serum protein of 2.73 Gm. per 100 cc., and a blood chloride of 600 mg. per 100 cc.

Fluids were started immediately, and because of the low serum protein, an initial dose of 600 cc. of 20 per cent amino-acid solution was given intravenously. Within twenty-four hours, the serum protein rose to 5.97 Gm. per 100 cc. As all attempts to decrease distention by passing the Miller-Abbott tube into the duodenum had failed and a complete small bowel obstruction was thought to exist in the lower ileum, an ileostomy was performed. The patient's general condition was so poor that he could not have stood an exploration. Only a small amount of fluid and gas was obtained from the small intestine, and during the following days, it became clear that the distention had been only partly relieved. The patient was placed in an oxygen tent and fluids, citrated blood, vitamins, and amino-acids were administered. In spite of these supporting measures, the patient gradually became worse and died on the sixth post-operative day.

(Fig. 1) Pitfalls—Intestinal Obstruction.

Autopsy showed the large bowel completely filled with soft fecal material and the small bowel moderately distended. At the rectosigmoid junction, there was an annular mass which had so constricted the lumen that only a narrow slit remained. Histologic study by Dr. C. C. Fenton revealed a papillary adenocarcinoma.

DISCUSSION

The erroneous x-ray findings which led to the decision to do an ileostomy can be explained only by assuming that the obstruction was not quite complete. All the gas of the colon evidently found its way through the narrow slit-like canal which remained at the site of the neoplasm. The solid particles of fecal material could not pass through this tiny opening and gradually filled the entire colon proximal to the carcinoma. This portion of colon, impacted with feces, acted as a closed loop and caused a secondary small intestinal obstruction.

We think that this case proves that accurate localization of an intestinal obstruction with a scout film is not always possible. Every diagnostic means at our command should be used when necessary to localize accurately the site of obstruction as soon as possible so that the site of decompression may be properly selected. It is also important to note that an absolutely sure method of passing the Miller-Abbott tube has not yet been reported.

SUMMARY

A case of rectosigmoid carcinoma is presented in which the scout film of the abdomen showed no gas in the large intestine, but did show distention of the small intestine. This was caused by feces accumulating in and completely filling the large intestine proximal to the lesion. Because of the roentgen impression of a small bowel obstruction, an ileostomy was done. Autopsy showed that the decompression was too high to give the expected relief.

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HEART DISEASE LEADS KILLERS

It is well known by all physicians and even by the lay public that heart disease is at present the leading cause of death in this country. In fact, this has been so for some years. The great increase in the prevalence of this disease that has taken place during the last few decades has resulted mainly, if not entirely, from the increase in the number of cases of coronary-artery disease, hypertensive heart disease and other types of nonvalvular heart disease. There is no evidence that rheumatic valvular disease has been a factor in this change, and it is fairly clear that syphilitic heart disease has become less frequent. The most striking aspect of this question is the tremendous incidence of coronary-artery disease. The two obvious explanations that have been suggested are that angina pectoris and particularly coronary thrombosis are now much more readily and accurately diagnosed, and that the span of life has been so materially lengthened during the last fifty years that there now is a larger proportion of the population alive over forty years of age, an age period in which coronary disease is likeliest to occur. It is still uncertain whether coronary disease is more prevalent among the same age groups today than it was fifty years ago, despite the fact that many physicians have strong impressions that they are seeing younger and younger patients with coronary disease.—Samuel A. Levine, M. D., and J. A. Hindle, M. D., in New England J. of Med.

OCCUPATIONAL THERAPY AND THE AGEING PERSON*

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The changing tempo of living places new emphasis upon truths as old as mankind. The value of occupational therapy had received some recognition over a thousand years before Galen said, "Employment is Nature's best physician and essential to human happiness." After the challenges of World War I had been met, another great physician, a psychiatrist, said that some day occupational therapy would take a place along with anesthetics as an effective means of relieving pain and suffering. Occupational therapy, as prescribed in the modern hospital, may be the complete fulfillment of the above.

Physicians and occupational therapists ever striving for more precise use of this adjunct to treatment foresee new undeveloped fields of usefulness. There are always new challenges. It is desired here to present but one: What can occupational therapy do for the ageing person?

In some near tomorrow, physicians and therapists will demonstrate that carefully adapted activities may be prescribed and used to aid all ageing persons. Such activities may not be called treatment programs. They will, however, furnish new sustaining interests designed to neutralize the demoralizing frustrations that frequently accompany growing older and retiring from more active life.

Occupational therapy has already contributed to the mental and physical health of a number of older persons, especially those found in hospitals treating chronic diseases and in the well organized homes for the aged. Even the smaller homes, that cannot have an attending physician prescribe and a trained therapist administer carefully adapted activities, have found that "something interesting to do" gives contentment, improves morale, and helps maintain health. In large cities organizations aid the homebound, both young and old, by furnishing new sustaining interests. Trained workers visit the individual in his home, stimulate interest, plan the activity, aid in procuring materials, and furnish instruction.

Every physician has among his patients those who need assistance in adjusting themselves gracefuly to growing old.

A testimonial dinner and the accompanying retirement publicity too often is followed by the "after-shock." Being a vital cog or wheel in the machinery of modern life gives a satisfying assurance, but this assurance receives a shattering jolt with the realization that one is no longer needed. With the loss of these externalized and healthily objectified lifelong activities, there is danger the individual's interest may become too subjective, turn inward, and center exclusively upon self. It follows that some of the complaints which may at first glance seem physical, largely reflect the emotional reaction to this unhealthy change in the focus of interest. Having unlimited time to ponder real, overdrawn, or imagined frustrations accompanying declining strength, increasing age, and the disillusion which may follow retirement, may be autosuggestive.

If other activities immediately replace those which must be discontinued, the satisfaction these give may absorb and completely neutralize the "after retirement shock." Therefore, it is just as important to prepare in advance and have hobby assets as well as financial resources. The individual who welcomes unlimited time to develop the acquired hobby resources will not experience the let-down and aftershock of retirement.

Some who have insight will be prepared. Hobbies should be prescribed as preparation for retirement, but even when the crisis has arrived the hobby treatment will be effective if prescribed and taken up without delay.

The discomfort, correctly diagnosed as "lack of sustaining interests," will respond to treatment which furnishes the needed satisfactions. The prescription, however, must be more explicit than simply "you need a hobby," "why don't you take up golf," or "try knitting." Unless a tolerance for exercise and sports is developed early and maintained throughout life, self-administered doses of golf can be disastrous for the older person.

On second thought, one realizes knitting holds no new interest for many who have already spent years with their needles. It can become little more than a soothing automatic movement requiring little concentration and effort. Some experienced knitters can freely examine their frustrations and discontents without dropping a stitch. It can be distasteful to others.

Little harm may have been done as such prescriptions are seldom taken. The "you-need-a-hobby" prescription will do little good until it is prepared or written to meet personal needs. The following may be of some service in an endeavor to neutralize the deterioration which follows loss of all sustaining interests, often observed in those who once led busy, useful lives.

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*Presented before the Second Annual Meeting of the American Geriatrics Society, New York City, June 10, 1944.

The following should be considered: ingredients, reactions, directions, filling the prescriptions, and office appointments to check up on treatments.

The ingredients may be any activity which objectifies interest, commands concentration, gives satisfaction and permits such graded modification of technic as can guarantee successful performance by the most inexperienced and timid novice. The treatment designed to neutralize frustration must eliminate all chance of an initial failure. The most valuable activities also meet varying levels of co-ordination, intelligent cooperation, energy, time and funds, and still give a satisfying sense of achievement.

Reactions: The previous vocation may be a clue to the potential likes and dislikes considered in prescribing hobby activities. While all have the creative urge, some enjoy fine detail; others, broad, plain surfaces; still others get satisfaction from large muscular movements. Color means much to some and little to others but there is a handicraft for every need.

Self-expression through creating and producing something out of raw material, using only the simplest hand tools, is preferred to crafts requiring machine tools or the various collecting hobbies. Satisfaction in both of the latter, especially the collecting hobbies, is too often measured in what may be spent. The satisfaction derived from developing manual skill is nourished by time and interest. As the sense of achievement pyramids, when simple hand tools are used, the cost declines until the vanishing point is approached. The creative urge is more primitive than the machine age. The pleasure derived from a highly mechanized hobby is largely vicarious. One should not be ensnared by the one hour or one day projects.

Directions limiting the time spent each day may be indicated by the individual's physical condition. In other instances this may be left to the patient's developing enthusiasm. The inexperienced should always be directed to take the first simple lesson and follow through the planned technical sequence of projects. This eliminates frustrating failures.

The prescription can be filled through organized and sympathetic class or private instructions, or self-instruction craft books. Older persons often are painfully aware they are not as receptive or alert as younger students. Therefore, some may hesitate, while others will refuse to enroll in a class and many who do, soon feel embarrassed and drop out. Some books recently published are especially designed for the occupational therapist, patient, and self-taught craftsman. Several of these books are 100 per cent graphic, most complete and inexpensive. These books present the technic so that it may be performed at home in the most limited accommodations. The few inexpensive hand tools and materials kept in a small box may be a complete hobby shop.

From his office library the physician could select a "craft text prescription," indicate the first project, give any directions desired, advise sources of supplies, and in arranging the next office visit, could indicate that he desired to see the work in progress or the completed project. At present the number of craft books adapted to this specialized use may be limited, but their use would stimulate the publishing of other books treating many similar activities. This would permit more individualization of the "you-need-a-hobby prescription."

Follow-up office visits are essential to the success of this treatment. Before the patient can safely ground his enthusiasm in the satisfaction found in achievement, the difficulties of making the first few projects must be overcome. During these office visits the patient may be observed wavering between continuing or discontinuing the program. He can be given the inspirational boost needed to throw the scales in the right direction.

All new technics seem difficult at first. Initial projects must be simple and therefore are less interesting. The patient can be helped to see the earlier evidence of growing mastery of technic and good workmanship. To this end such achievement should receive thoughtful measured praise. Too little or too much may produce undesirable reactions.

The activity which requires too little thought and effort of one individual may stimulate another to overdo. Unforeseen inability to accomplish the suggested quality and quantity of work would be most distressing to the overly conscientious individual. The incompleted goals of another might be due to lack of application. Where the first might call for reduction of dosage, appreciation and praise of the effort made, the latter indicates the need for stimulation to better application and greater effort. The glowing pride the patient exhibits while discussing his handiwork, graphically charts readjustment progress.

As the developing mastery of the technic is reflected in a more comfortable self-assurance, the physician may consider advising the self-trained craftsman to enroll now in one of the groups of the previously mentioned "courses." This may be motivated by the physician's assurance that the individual can meet competition comfortably and benefit by it as well as by advanced personal instruction and the socializing influence which the group may contribute to progressive readjustment. Later, the individual might advisedly be stimulated to get added satisfac-

tion from entering his handiwork in various exhibits.

The need exists. It is possible to write an effective "you-need-a-hobby prescription." As outlined earlier, facilities for filling the prescription do exist. The physician, in his contacts, gains much insight into the personal needs of older persons. Beside the above, the physician must be at least conversant with the craft technic prescribed.

The doctor may recall experiences similar to the folowing: I had been invited to the preview of an exhibit of the work of members of a county arts and craft guild. The members are all amateurs. On entering the gallery, I was at once approached by a little man well in his eighties. Had I seen his pictures? As I had not and was interested, we were soon standing before two small oil landscapes. His pictures portrayed his life-long vacation spot in Vermont and were painted from memory. Instead of carelessly saying, "Wonderful" or "Marvelous" and moving on, the time was taken to discuss the technic, handling of subject matter, compostion, atmosphere, perspective, detail, color and brush work. Six or eight feet away, but within hearing, stood his elderly wife sharing in her own way the warm glow of his achievement.

I was amply repaid for my moments by the joyous pride with which he informed me that he had never studied, but just painted because he enjoyed it. Beyond his two paintings are two other pictures of life. He might have represented the less happier of the two: an elderly man spending his endless days rocking in a chair, bitterly complaining, "I don't feel well anymore; I can't do anything; nothing tastes good; I can't eat; I wish I were dead." This picture is frequently seen. Instead he chooses to spend a whole year painting two memory pictures, lives over again past happy years, and looks forward with keen delight to this annual exhibit and to the pleasure of showing you and me these masterpieces. While he made this adjustment largely unaided, many need the physician's aid and the therapist's assistance. Only two small landscapes, not too well done, but what a glorious achievement when viewed as a satisfactory adjustment to growing old.

DISCUSSION

Edward B. Allen, M. D., White Plains: Mr. Haas, out of the wealth of his experience, has concisely formulated some significant truths. He has placed the responsibility for the occupational therapy of the older person where it rightfuly belongs, directly upon the physician. He has stressed the necessity of the physician being acquainted with the patient's interests, with his aptitudes, and also with some knowledge of the type of occupation he prescribes for his patient. But even then, the physician's duties are not ended. The physician must endeavor to inoculate the patient with an enthusiasm and interest to continue what he has begun. To do this, the physician must display like enthusiasm and interest and it must be sufficiently evident to be actively stimulating in character.

The author has pointed out the importance of imparting detailed and accurate information to the patient. Start with simple procedures that can be readily accomplished and that will require only such simple tools and materials as are easily available and are well within the financial means of the patient.

Regulate the time to avoid fatigue. Avoid the perils of undue complexities and frustrations arising. In other words, disarm the patient of any possible legitimate alibis or excuses for discontinuing or failing to accomplish any task that has been planned for him. Be able to make intelligent criticism and to share with the patient in a rational evaluation of his work. Encourage him to more accomplished efforts.

Immediately a question arises in the mind of the physician. These challenges to the physician's time and ability are all very well formulated, but how is he going to live up to such accomplishments? Such a query has arisen in my own mind.

Under such conditions I would feel obligated to obtain such information and advice from those qualified to give it. I would go to the occupational aide or director and solicit his help. I would consult with him and get him to assist me in advising and directing the patient, if possible. If this were not possible, then I would at least solicit the occupational director's help as to where both the patient and myself might acquire books of instruction that would be of assistance to us in the projects that lay before us. Remember that Mr. Haas has suggested an office library. As the patient obviously would have more time for this than myself, I would arrange for him to do most of the reading, but still do sufficient myself to be aware as to whether the patient was reading and studying intelligently or not, although the quality and increasing perfection of his work would, in the last analysis, be the most satisfactory answer. In the end, I should endeavor to give the patient a feeling of superiority and accomplishment by enabling him to go on and reach a degree of attainment where he, in turn, could advise and inform me.

I am acquainted with Mr. Haas' ability and writings and it is through these that I have been stimulated to make these suggestions, which I should like to consider as practical.

I should like to point out, however, that the

patient should be allowed some leeway in his selection of tasks and may in some instances do better at those where he can make use of his head rather than his hands. His interests may be athletic or literary rather than mechanical. But even then, he will be able to relax better and have a more flexible mind, if he will interspace such pursuits with occasional simple mechanical and objective creative efforts.

But we should think in terms of prophylaxis as well as treatment. The physician should be looking for symptoms of distress, discontent, frustration, irritability, undue criticism of others, tenseness, and obvious rationalizations in the adolescent, young and middle-aged patients as well as in those about to retire. This is a more profitable and ideal time to interest them in occupational therapy.

When the busy conscientious business or professional man ceases his adult means of employment and remuneration, he needs some other sustaining interest. But what is important to remember is that this sustaining interest should have been developed during his earlier formative years, when his mind was more elastic and receptive to new ideas, rather than used as a new replacement therapy after his retirement. In the case histories of three patients which I hope to present to you later during these meetings, I will show that they all developed a sustaining interest in their early years that could be continued even when mental illness prevented them from satisfactory adjustment to their former remunerative employment.

If our patient limits his interests to business alone, he may be financially and emotionally rewarded for the the time being, but when he is obliged to terminate this interest, he will have nothing to think about but himself. Consequently his interests will be turned inward rather than outward and he will become most unhappy and restless. Of course even then he may be helped to develop a hobby or new avocation, but it will be extremely difficult. The person who attempts to offer this help will often fail. It is important to remember that the older we grow, the more difficult it is to get back again to our former level of cerebral activity, once we cease our externalization of interest. Consequently we should endeavor to keep mentally active until we die. We should train ourselves in adolescence always to be seeking new interests and never to be completely satisfied with things as they are. We should have inquiring minds and always want to know more, not only about a few, but about many things.

We should have collateral vocations during our active, middle years of life, so that we may replace the one with the other, should necessity arise. When we have to give up what we have been doing as a means of livelihood, life should not look like a blank wall ahead, but as an obstacle that we can overleap, outflank, or tunnel under with an associated asset or interest. In other words, we should develop in youth interests of more than one kind, which we may call hobbies, if you will, but which I prefer to call collateral vocations, which we may not develop to the extent that we do our actual business or profession, but which should be sufficient for us to consider as projects to work on when we can find the time in the later decades of life. They should be consistent however, and not too taxing for oncoming physical infirmities. They should be more cerebral than muscular. They should lead us to the philosophy that life will never be long enough for us to accomplish all we want to do. We should feel we have never finished. When we cease to habitate the surface of this terrestial sphere, we should depart with the satisfaction that we have worn out rather than rusted out. Remember, the more you use your brain, the easier it becomes to do so.

THE AGEING HEART

An important guide in the management of the ageing person is the diminished cardiac reserve, which accompanies the general loss in resiliency and adaptability of the ageing body. Sudden spurts of energy or exertion may overtax the heart and do permanent damage. With a coronary blood supply sufficient to supply the needs of the heart muscle under ordinary conditions, a sudden physical strain or emotional excitement may so increase the work of the heart, that the coronary arteries cannot admit enough blood to the myocardium to keep up with the demand, and cardiac infarction may occur. In many cases the onset of cardiac infarction can be traced to a definite unusual event, most often exceptional physical strain. Exertion in cold weather is especially prone to cause attacks. Over-eating or over-drinking at banquets and weddings is a common antecedent story. Sexual intercourse, as well as unusual emotional reactions may be direct causes of cardiac infarction. It is not chance that the marriage of an elderly man to a young woman so often comes to an early disastrous end, when the groom, trying to renew his youth, experiences a heart attack. The elderly individual should accept his years graciously; he should not run to catch a bus, or dash upstairs two steps at a time; he should learn to live a life of moderation and equanimity.

In old people we do not so often see a single disease running a clear cut self-limiting course. In the young, the physician, up to a certain point, can successfully treat the disease and ignore the patient, although this attitude can hardly be indorsed. But in the old, diagnosis and treatment must embrace the whole body and mind as an integrated unit.—Ernst P. Boas, M. D., in New York Medicine.

The President's Page

We are standing on the threshold of a postwar world. The medical profession is confronted with new problems, although in reality they have always been with us. Even though we are unaware of the exact nature of the epoch upon which we are entering, we do know that the life ahead of us is not fatally preordained.

The future of medicine in West Virginia depends almost wholly upon the effort and intelligence with which we attack today's problems. It is entirely within our power to guide the forces of change where health matters are involved. Personally, I feel that we lack the power to stop them.

We as a profession know that our servicemen in World War II received by far the best medical care ever given to armed forces since the beginning of wars. This was possible because our doctors were able to administer aid to the victims, no matter where or when stricken. Now that peace is restored to this war torn world, and servicemen are returning to their homes by the thousands, it is our job to provide them, and their families, with even better medical care than they knew while serving with the armed forces.

This job requires an immediate change in our present plan of practice. The motivating power in our social upheaval has for its ostensible purpose better economic welfare for every man, woman and child in the United States. Maintenance of health is one of the major phases of this program. We must pay more attention to the preventive aspects of medicine. Medicine has already been caught in this social upheaval. Changes are inevitable. Whether we like it or not, these changes will be extensive and will result from the demand of the lay public.

An informed public knows full well today that our scientific progress in medicine is far ahead of its social application. Being aware of the existence of a better type of medicine than is available generally, the people have a vision of greater security and comfort, with better protection against disease and its subsequent economic consequences. Today the people are searching for a medical Utopia. Tomorrow they will be on the march.

Our job is to abandon our ostrich-like attitude that there is no need for changing our long outmoded system of medical practice. We should cease to oppose constructive changes in our system of medical care. We must ourselves institute a plan today, not tomorrow—a plan designed to remove the fear, and insofar as possible, the curse of illness from every family in West Virginia. In the words of Milton, in Paradise Lost, "we must awake, arise, or be forever fallen." This is our job!

Andrew E. Rinick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journal, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

REVAMPED PLANS

The tenacity with which certain political interests in Washington hammer away at plans for state medicine which, in our judgment, would enslave medical service and fetter scientific medical progress is well illustrated by the recent proposal of President Truman for the adoption of Federal sickness insurance. The most astounding feature of these plans for state medicine all along has been, to us at least, the fact that the leftist social planners who would foist such a devastating scheme upon the American people fail to take into consideration the fact that above ninety-five per cent of the individuals who have to deliver medical care to all the people—the practicing physicians — believe that governmental sickness insurance is the poorest and most inefficient method by which medical care can be delivered to the American citizenry.

It seems to us that the most recent bill introduced into the Congress by Senator Wagner et al is more likely to be enacted into law than any of its predecessor proposals, and certainly it behooves the entire medical profession to use every possible means to inform not only the members of the Senate and House of Representatives, but the entire American populace as well, of the dangers inherent in such legislation to health and medical progress, and especially the grave danger of the resultant development of a dictatorship in our country, as witness the horrible example of Germany whose first step along the pathway to the vortex of socialism and utter ruin was Bismark's scheme to socialize medicine.

An editorial in the December 1 issue of the Journal of the American Medical Association presents the president's proposal in correct perspective. This editorial, we are informed, is from the gifted pen of Dr. Morris Fishbein, and it is a gem of clear reasoning and a literary classic. In fact, we do not recall as clear a presentation of reasoning or as potent an argument in the English language since Edmund Burke's oration before the British Parliament "On Conciliation with the American Colonies". We could not gild the lily if we would, and we would not gild this one if we could. Accordingly, we urge upon every doctor in West Virginia to read, mark, learn, and inwardly digest this able presentation by Doctor Fishbein.

ANDY AMICK, PRESIDENT

On January 1, 1946, Andrew E. Amick, M. D., of Charleston, takes office as the seventy-ninth president of the West Virginia State Medical Association. Medicine has come a long way since the inauguration of Dr. William Jourdon Bates, of Wheeling, as the first president in 1867. While the scientific world has moved forward steadily since then, the strides that have been made since the end of World War I have been little less than phenomenal.

One of the biggest problems that confronts medicine as Andy takes office is the distribution of medical care. Socialized medicine in the form of the Truman Health Insurance Bill is a real threat to what we know as organized medicine, to say nothing of the American people. The Washington gang is shooting both barrels of its bureaucratic shotgun in one last effort to regiment the doctors of America. Here in West Virginia the members of the profession are working diligently to provide something in the way of medical care that will be far superior to anything the government can hope to offer.

There is plenty of work to be done, and Andy has what it takes to succeed. He brings to the office years of experience in administration and organization. His four years' service as a member of the Council and his term as president of Kanawha Medical Society have well fitted him for the job he is assuming at the beginning of the year 1946. He will do his best at all times, and we extend to him hearty congratulations and best wishes for success as president during the twelve months that lie ahead.

COUNCIL CONTINUES FIGHT

Upon his retirement from the presidency of the West Virginia State Medical Association, the services of Dr. Thomas L. Harris will not be lost to the organization, for he automatically assumes the chairmanship of the Council, a post held during the past year by Dr. Robert J. Reed, Jr., of Wheeling. Doctor Reed continues in office as a councillor-at-large.

Tom Harris has done a splendid job as head of organized medicine in this state. His was the duty of steering for the State Medical Association a straight course during a year when the war on both fronts came to an abrupt end. He has cooperated to the fullest extent with the members of the doctor group who are serving on the advisory committee to the legislative interim committee studying public health problems. As chairman of the Council, he will continue to help this group in its future deliberations.

With Andy Amick as president, Tom Harris as chairman of the Council, and Bob Reed as councillor-at-large, the Council itself, composed of doctors who are not afraid of work—doctors who have already given much time to the study of health problems in West Virginia—should and will continue to fight for everything that is just and right and honest for the doctors in this state, and for those things that will help provide good medical care for all of our people.

"STRATEGY" IN WASHINGTON

No mystery is attached to the "strategy" of the pressure boys behind the Truman Health Insurance bill in deleting from this administration-sponsored version of the Wagner-Murray-Dingell bill, which has been in ill repute in and out of Congress for many months, all reference to an appropriation for administration and to an increase in social security taxes. By eliminating this section, the Finance Committee of the Senate and the Ways and Means Committee of the House were by-passed, and we find the Truman bill in the lap of Senator Murray's committee on education and labor, and the House bill in the custody of the interstate commerce committee.

Although Senators Wagner and Murray and Representative Dingell are now calling signals, Senator George and his powerful Finance Committee have to be reckoned with before the battle is over. The bureaucratic boys who have been watching the W-M-D bill gathering dust in the files of the Senate Finance Committee for a long time, and who are now seeking to take over medicine via the Truman bill, lost sight of the fact that Senator George will have to be given the ball sometime, as you can't administer socialized medicine without funds, and the Finance Committee will have something to say about any appropriation that might be needed for this purpose.

So it is the old story of a car without gas, or a buggy without a horse, and it will be interesting to watch the further maneuvering of those who try to make themselves believe with the pressure gang that medicine needs federal supervision.

Here in West Virginia our Legislative Interim Committee on public health matters is not standing still. With the assistance of the advisory committee, the members are seeking a proper solution on a state level of the problem of good medical care for all of our people, the rich and the poor, no matter where they may live. And, there is much to encourage us to believe that they will succeed.

A DESERVED HONOR

The Southern Medical Association, by unanimous vote at its meeting in Cincinnati November 12-16, chose Dr. E. L. Henderson of Louisville as President-Elect, and in so doing recognized one of the most loyal and indefatigable workers in its membership of Southern Doctors.

In his own State, Doctor Henderson has been honored in the past by election to presidencies of his County Society (Jefferson) and of the Kentucky State Medical Association. His activities on behalf of organized medicine have also won him many other distinctions. To no cause has he given more unstintingly of his time and talent than to the American Medical Association which he serves as a member of the Board of Trustees.

"Elmer," as we all know him, is proud of his profession, cheerfully generous to doctors, all of whom he loves, and personally gifted with a charm of manner and friendliness that serves constantly to enlarge his circle of acquaintances.—Kentucky Medical Journal.

UNIVERSAL E. M. I. C.

Just now Senator Pepper is cooking up a $50,000,000 mess in the form of universal obstetric and infant care. The E. M. I.C. now costs $43,000,000 a year, so it is evident that $50,000,000 is just a drop in the bucket. The Senator is frank in saying that when the measure is put in operation, the Congress will from time to time vote funds to cover the deficit. If the bill passes, the Secretary of Labor will have full control of the practice of obstetrics and pediatrics all over the country. The individual States will be only "yes men" carrying out the orders of the Children's Bureau.—Virginia Medical Monthly.

General News

NEW OFFICERS OF STATE MEDICAL ASSOCIATION ASSUME DUTIES JAN. 1

The new officers of the West Virginia State Medical Association, elected at the annual meeting of the House of Delegates at Clarksburg last May, will assume their duties the first of January.

Dr. Andrew E. Amick, of Charleston, is president, succeeding Dr. Thomas L. Harris, of Parkersburg. Drs. B. S. Brake, of Clarksburg, and J. B. Thompson, of Oak Hill, succeed Drs. M. B. Williams, of Wheeling, and L. G. Houser, of Beckley, as first and second vice presidents, respectively. Dr. T. M. Barber, of Charleston, continues as treasurer, a post he has held for the past twenty years.

Doctor Amick was born in Fayette County near Corliss. He received has academic education at Washington & Lee University and West Virginia University, graduating from the latter institution in 1923, with the degree of B. S. In 1925, he graduated from the Medical College of Virginia with the degrees of M. D. and Ph. G. He was licensed in West Virginia the same year. He located at Bluefield in 1927 for the practice of his specialty of pediatrics, and moved to Charleston in 1930. During World War I, he served as a first lieutenant in the infantry.

Dr. Andrew E. Amick

Doctor Amick served as a member of the Council from the Sixth Councillor District for two full terms ending in 1944. He is a former secretary of Kanawha Medical Society and served as its president in 1943. At the present time he is chairman of the section on pediatrics of the State Medical Association.

In addition to the officers, the Council is composed of Dr. Thomas L. Harris, of Parkersburg, chairman, and Dr. R. J. Reed, Jr., of Wheeling, councillor-at-large, and the following district councillors: First, R. D. Gill, Wheeling, and John P. Helmick, Fairmont; second, Carl E. Johnson, Morgantown, and Guy H. Michael, Parsons; third, E. A. Trinkle, Weston, and J. E. Wilson, Clarksburg; fourth, Walter C. Swann, Huntington, and Curtis P. Artz, Grantsville; fifth, N. H. Dyer, Bartley, and J. L. Patterson, Holden; sixth, W. P. Bittinger, Summerlee, and Thomas G. Reed, Charleston.

CLINICS AT SPENCER STATE HOSPITAL

The board of control has announced that beginning January 1, semi-monthly clinics will be conducted at Spencer State Hospital (mental) by Dr. Edward F. Reaser, assistant superintendent at Huntington State Hospital, and Dr. Orin R. Yost, newly appointed superintendent at Weston State Hospital. This is part of a new program agreed upon by Doctor Reaser and Doctor Yost, Dr. C. T. Taylor, superintendent of the Huntington institution, and Dr. A. L. Morris, head of the Spencer Hospital, for the treatment of patients at the three state mental institutions.

COMMITTEE ON SCIENTIFIC EXHIBIT

Dr. Andrew E. Amick, president of the State Medical Association, has named the following doctors as members of the committee on scientific exhibit for 1946:

Dr. Hu Myers, of Philippi, chairman; and Drs. C. C. Fenton, Morgantown, and Chauncey B. Wright, Huntington.

Doctor Myers has served for several years as chairman of this committee, which will arrange the scientific exhibits at the annual meeting of the State Medical Association at Huntington, May 13-15, 1946.

ACCEPTS RESIDENCY IN DETROIT

Dr. Richard K. Hanifan, of Clarksburg, has accepted a two-year residency in obstetrics and gynecology at the Harper Hospital, in Detroit.

1946 ROSTER

The 1946 roster of members of the West Virginia State Medical Association is printed in this issue of The Journal. Members are requested to check the lists carefully and report promptly any errors in names and initials, or symbols designating honorary members, members in the service, and members released from military service. The corrected roster will be printed in pamphlet form later in the month and distributed to officers of the State Medical Association and all component societies.

ASSOCIATION COMMITTEES NAMED BY PRESIDENT AMICK FOR 1946

Members of standing committees of the West Virginia State Medical Association have been named by Dr. Andrew E. Amick, the president, for 1946.

Dr. Henrietta L. Marquis, of Charleston, has been named chairman of the committee on child welfare, and Dr. E. N. Dupuy, of Beckley, was selected to head the committee on maternal welfare. The members of these two committees were elected at the meeting of the House of Delegates, at Clarksburg, in May 1945, and they will remain in office until the meeting of the House of Delegates in 1946.

The scientific work committee was named by Dr. Amick several weeks ago. The committee is composed of Dr. William R. Laird, of Montgomery, chairman; and Drs. H. M. Beddow, of Charleston, and Raymond M. Sloan, of Huntington.

The following is a complete list of the members of the other standing committees appointed by Dr. Amick:

Committees

Cancer: J. Ross Hunter, Charleston, Chairman; Russell B. Bailey, Wheeling; Chauncey B. Wright, Huntington; C. C. Fenton, Morgantown; Thomas Bess, Keyser; J. B. Clinton, Fairmont; and H. H. Haynes, Clarksburg.

Revision of Constitution and By-Laws: Carl E. Johnson, Morgantown, Chairman; James G. Ralston, Clarksburg; John P. Helmick, Fairmont; Wm. P. Bradford, Moundsville; Spencer L. Bivens, Charleston; Ivan R. Harwood, Huntington; and C. F. McClintic, Williamsburg.

D. P. A. Advisory: Hugh A. Bailey, Charleston, Chairman; Claude B. Smith Charleston; and T. Kerr Laird, Montgomery.

Fact Finding and Planning: Ray M. Bobbitt, Huntington, Chairman; Bert Bradford, Jr., Charleston; James L. Wade, Parkersburg; Philip Johnson, Fairmont; M. H. Porterfield, Martinsburg; W. L. Van Sant, Hinton; Margaret Stemple, Morgantown; R. J. Condry, Elkins; and S. Elizabeth McFetridge, Shepherdstown.

Industrial Health: J. J. Brandabur, Huntington, Chairman; Thomas W. Nale, South Charleston; J. L. Patterson, Holden; H. M. Brown, Belle; C. C. Jackson, East Rainelle; W. F. Rogers, Parkersburg; J. J. Jenkins, Jr., Farmington; and B. J. Moore, Morgantown.

Legislation: R. O. Rogers, Bluefield, Chairman; Cecil O. Post, Clarksburg; L. Rush Lambert, Fairmont; W. P. Black, Charleston; and Ward Wylie, Mullens.

Medical Education: R. J. Wilkinson, Huntington, Chairman; E. J. Van Liere, Morgantown; P. A. Tuckwiller, Charleston; J. O. Rankin, Wheeling; and D. C. Ashton, Beckley.

Necrology: Harry G. Steele, Bluefield, Chairman; Roy Ben Miller, Parkersburg; R. J. Reed, Wheeling; James McClung, Richwood; James R. Bloss, Huntington; and T. Jud McBee, Morgantown.

Publicity: George F. Evans, Clarksburg, Chairman; Guy H. Michael, Parsons; A. G. Lanham, Ronceverte; J. M. Cofer, Bergoo; and J. A. Newcome, Keyser.

Syphilis: Howard T. Phillips, Wheeling, Chairman; C. A. Hoffman, Huntington; C. G. Power, Martinsburg; J. L. Thompson, Weirton; and H. M. Escue, Charleston.

Conservation of Vision and Hearing: J. E. Blaydes, Bluefield, Chairman; A. C. Chandler, Charleston; Welch England, Parkersburg; S. S. Hall, Clarksburg; F. O. Marple, Huntington; S. H. Burton, Weston; V. E. Holcombe, Charleston; and John H. Trotter, Morgantown.

DR. ELKIN HEADS SSA

Col. Daniel Collier Elkin, MC, chief of surgical service at Ashford General Hospital, White Sulphur Springs, was elected president of the Southern Surgical Association at the annual meeting at Hot Springs, Virginia, December 6. Dr. Charles Bruce Morton, II, of the University of Virginia Hospital, Charlottesville, and Dr. R. L. Sanders, of Memphis, Tennessee, were elected vice presidents, and Dr. Alfred Blalock, of Baltimore, was reelected secretary.

AMERICAN BOARD OF OPHTHALMOLOGY

The American Board of Ophthalmology has announced 1946 examinations as follows: Chicago, January 18-22; New York, April 10-13; San Francisco, June 22-25; and Chicago, October 9-12.

Under a new ruling, previously accepted candidates must mail their lists of surgery to the board office at least sixty days prior to the examination. All new applicants are now required to send their lists with application. Dr. S. Judd Beach, of Portland, Maine, is secretary of the board.

DR. SHOULDERS HEADS A. M. A.

At the meeting of the House of Delegates of the American Medical Association, held at Chicago December 3-6, Dr. Harrison H. Shoulders, of Nashville, Tennessee, speaker of the House of Delegates since 1938, was elected to the position of president-elect.

Dr. Roy W. Fouts, of Omaha, Nebraska, who has served as vice speaker for several years, was unanimously elected speaker to succeed Dr. Shoulders, and Dr. Olin West was reelected secretary. Dr. Francis F. Borzell, of Philadelphia, was elected to succeed Dr. Fouts as vice speaker.

Other officers elected at this meeting were: Vice president, Dr. William R. Maloney, Sr., Los Angeles, California; assistant secretary, Dr. George F. Lull, Washington, D. C.; and treasurer, Dr. Josiah J. Moore, Chicago, Illinois.

Drs. Dwight H. Murray, of Napa, California, James R. Miller, of Hartford, Connecticut, and John H. Fitzgibbon, of Portland, Oregon, were elected to membership on the board of trustees. Dr. Roscoe L. Sensenich, of South Bend, Indiana, was elected chairman of the board to succeed Dr. James R. Bloss, of Huntington, whose term expires this year.

The annual meeting will be held in San Francisco in 1946, at Atlantic City in 1947, and at St. Louis in 1948.

ACP TO MEET IN PHILADELPHIA

The 1946 annual meeting of The American College of Physicians will be held at Philadelphia, May 13-17, with headquarters at the Municipal Auditorium.

RELOCATIONS

Dr. E. D. Jackson, of Van, has moved to Enon Valley, Pennsylvania, where he was formerly engaged in practice before coming to West Virginia several years ago.

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Dr. Wilson S. Phillips, of Wheeling, has moved to Milwaukee, Wisconsin, where he is engaged in practice at 2600 W. 61st Street.

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Dr. Darrell A. Campbell, of Schenectady, New York, will locate at Charleston for the practice of surgery about January 1. He will be associated with Bert Bradford, Jr., at 603 Atlas Building.

Doctor Campbell served as chief of surgery, with the rank of Major, at a general hospital in the ETO, and was recently released from military service. After his graduation from the University of Nebraska College of Medicine, he had five years' surgical training at the University of Michigan. He is a member of the American Board of Surgery and a fellow of the American College of Surgeons, and had practiced at Schenectady for just a few months prior to his call to active duty in the Army medical corps.

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Dr. Frank Jamison, of Dehue, has moved his offices to the White and Browning Building at Logan, where he will be engaged in general practice. He was located in Taylor County before being called to active duty in the Army medical corps in 1939. Upon his release from military service he located at Dehue, where he has since been engaged in industrial practice.

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Dr. Jerome E. Andes, who formerly practiced in Morgantown, has recently moved from Bozeman, Montana, to Safford, Arizona.

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Dr. George M. Caldwell, formerly of White Sulphur Springs, is now located at New Altamont Hospital, Christiansburg, Virginia. He was recently released from military service, having served as a lieutenant commander in the Navy.

* * *

Dr. Richard C. Neal, clinical pathologist of Richmond, has moved to Bluefield where he is connected with the staff of Bluefield Sanitarium.

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Dr. John B. Traul, formerly of Logan, is now located at Barberton, Ohio.

* * *

Dr. George T. Evans, of Fairmont, recently released from military service, has relocated at Idamay.

CONFERENCE OF PRESIDENTS

At the first annual meeting of the Conference of Presidents and Other Officers of State Medical Societies, held at the Continental Hotel in Chicago, December 2, 1945, Dr. A. S. Brunk, of Detroit, president of the Michigan State Medical Society, was elected president.

Dr. Walter E. Vest, of Huntington, editor of the West Virginia Medical Journal, was elected for a three-year term on the executive committee of this new organization.

The meeting at Chicago was sponsored by the Michigan State Medical Society, and the program was sponsored jointly by that society and the California Medical Association.

STATE NUTRITION COMMITTEE ELECTS

Miss M. Estelle Ingoldsby, R. N., has been elected president of the West Virginia State Nutrition Committee. Miss Ingoldsby has been connected with the state health department for several years as consultant in industrial nursing. She has been a member for the past two years of the subcommittee on nutrition and industry of the State Nutrition Committee.

DOCTORS LICENSED BY PHC

As the result of the examination held by the Public Health Council at Charleston, October 4-6, 1945, twelve doctors have been licensed to practice medicine in West Virginia.

The following doctors were licensed by examination: Robert Glenn Arrington, Wharton; Janie Meryleen Bailey, Williamson; Earl Lawrence Barrett, Seattle, Washington; Otis Wilson Corder, Jane Lew; Alfred Bernard Flarsheim, Huntington; Wallace Byron Lilly, Beckley; David Stanley Pugh, East Liverpool, Ohio; and Walter Richmond Wilkinson, Huntington.

Those licensed by reciprocity were: Helen Morrison Belknap, Charleston; Paul Hardin Harmon, Milton; Victor Samuel Skaff, Charleston; and Bruce Ralph Sutton, Charles Town.

COMMITTEE ON LOCAL ARRANGEMENTS

A committee on local arrangements has been named by Dr. J. F. Barker, president of the Cabell County Medical Society, in connection with the 79th annual meeting of the State Medical Association, which will be held at Huntington next May.

The committee is composed of Dr. J. S. Klumpp, of Huntington, chairman; and Drs. J. R. Brown, I. E. Taylor, Don Kessler, C. B. Wright, S. Weinstein, W. B. Hunter, Edward Reaser, D. Ketchum, and R. M. Wylie.

NEW SECTION IN A. M. A.

A section on General Practice has been added to the program of the Scientific Assembly of the American Medical Association. This step was taken by the House of Delegates at the annual meeting at Chicago early in December, and followed a demand for such action that had assumed country-wide proportions. This new section will present programs designed especially for the sixty-five percent of the members of the medical profession who come within the designation of "general practitioners."

The name of the present Section on Practice of Medicine has been changed to the Section on Internal Medicine.

Doctors in the Service

Capt. H. R. W. Vial, who served an internship and residency at the Charleston General Hospital in 1943-44, has been released from military service and at present is located with Dr. Daniel N. Barber, at 1117 Virginia Street, Charleston. Dr. Vial served in France, Belgium, and Germany and was captured by the Germans in the break-through in December, 1944, and was held captive in a prison camp until V-E day.

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Major James H. Gray, formerly of Clendenin, who has been in military service for over five years, has been given his honorable discharge and is now in industrial practice with Dr. H. D. Hively, at Ward.

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Major J. Russell Cook, of Huntington, has been released from military service and is back in civilian practice with offices at 206 Professional Building.

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Dr. William W. Davis, of Beckley, who has been in the military service for over five years was recently released and has accepted a position on the medical staff of the Oak Hill Hospital, Oak Hill.

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Lt. Moore Moore, Jr. (MC), USNR, formerly of Beckley, was recently discharged from military service and has located for the practice of his profession in Memphis, Tennessee. He has offices in the Commerce Title Building.

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Commander Clyde A. Smith (MC), USNR, of Beckley, is now on terminal leave from the Navy and expects to return to civilian practice sometime soon.

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Major Franklin H. Goodwin, of Welch, has been released from military service and is now a member of the staff at St. Luke's Hospital, Bluefield.

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Commander William A. Thornhill, Jr. (MC), USNR, of Charleston, has been released from military service and has resumed civilian practice at 810 Atlas Building in that city. Doctor Thornhill has served with the Navy in Brazil, and at the U. S. Naval Hospitals at Newport, R. I., Bethesda, Maryland, and Jacksonville, Florida.

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Lt. Comdr. Jack Basman (MC), USNR, recently released from military service, has completed a short postgraduate course in pediatrics, and is located in the Medical Arts Building in Charleston. He was on the faculty at the National Naval Medical School at Bethesda, Maryland, for several months, and was liaison officer to the National Defense Research Council. His last assignment was with the Research Bureau of Medicine and Surgery, in Washington.

Lt. Comdr. Robert M. Sonneborn (MC), USNR, of Wheeling, who was recently released from military service, will resume civilian practice January 1, with offices in the Riley Law Building, Wheeling.

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Capt. James S. Klumpp, of Huntington, who was recently released from active duty with the Navy, has resumed private practice with offices in the West Virginia Building at Huntington.

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Capt. Herbert N. Shanes, formerly of Caretta, writes that he is on terminal leave from the Army and at present is located in New York City. He plans to take a refresher course after the first of the year in New York City.

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Major Thomas B. Gordon, of New Martinsville, and Capt. Richard F. Miller, of Paden City, have returned to civilian practice in their home communities.

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Major K. M. McPherson, of Beckley, has recently been released from military service and has located at New Brighton, Pennsylvania, for general practice. He served with the 4th Infantry Division in the ETO.

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Major A. C. Chandler and Major John Hash, both of Charleston, have recently returned to the states after 29 months' service in Chabua, India. As soon as office space can be obtained, Dr. Chandler will resume his former practice of ophthalmology, while Doctor Hash will practice his specialty of general surgery.

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Major Richard Hamilton, of St. Marys, has been released from military service and has resumed private practice in his home community.

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Major James R. McClung, formerly of Wheeling, has recently been released from military service, and has located in Clarksburg, where he will be associated in the practice of dermatology with Dr. John C. Kerr, with offices in the Professional Building. Major McClung will reenter civilian practice about January first. He served with the 49th Field Hospital while overseas.

* * *

Lt. Commander Clarence E. Lewis, of Charleston, has just been released from the Navy and will open offices with Dr. R. E. Woodall in the Charleston Trust Building, West Washington Street, Charleston. Commander Lewis served with a Naval construction battalion in the Pacific and was stationed at the U. S. Navy Dispensary, Washington, D. C., when he was released from service.

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Captain Henry M. Hills, Jr., MC, of Charleston, has been released from military service and returned to civilian practice. He is associated with Dr. Randolph L. Anderson at 524 Medical Arts Building in the practice of orthopedics. Doctor Hills was taking special work in orthopedics at the Massachusetts General Hospital, Boston, when he entered military service in 1942. He served with the armed forces overseas and saw action in France and Germany.

BACK HOME

Names of a number of West Virginia doctors who have been released from military service have been reported to the headquarters office of the West Virginia State Medical Association since the December issue of the West Virginia Medical Journal went to press.

The following supplemental list was compiled as of December 18, 1945:

ARMY

Asch, Capt. James T., Parkersburg
Bateman, Capt. George, Williamstown
Beaumont, Capt. Godfrey L., New Cumberland
Bickel, Major Carl S., Wheeling
Booher, Major W. T., Wellsburg
Brannan, Major Dorsey, Morgantown

Chandler, Major A. C., Charleston
Cook, Major J. Russell, Huntington
Cooke, Major William L., Charleston
Coplin, Capt. Robert W., Huntington
Davis, Major William W., Beckley
Dickerson, Major L. A., Fayetteville
Dunman, Major L. E., Gary

Echols, Capt. John E., Richwood
Eckman, Capt. Leonard, South Charleston
Glassman, Capt. Dan, Charleston
Goodwin, Major Franklin H., Welch
Gordon, Capt. T. B., New Martinsville
Gray, Major James H., Clendenin

Hager, Capt. J. L., Charleston
Hall, Major Carl B., Charleston
Harloe, Capt. W. M., Princeton
Harsha, Major Gene M., Sistersville
Hash, Major John W., Charleston
Hills, Capt. Henry M. Jr., Charleston

Jarrell, Capt. Cecil A., Charleston
Jarrett, Capt. Marion F., Charleston
McClung, Capt. James E., Richwood
McClung, Major James R., Wheeling
McPherson, Major Kenneth M., Beckley
Miller, Capt. Richard F., Paden City

O'Dell, Capt. Morris H., South Charleston
Pace, Capt. L. J., Princeton
Peskoe, Capt. Louis Y., Boomer
Peters, Capt. J. T., South Charleston
Shanes, Capt. Herbert N., Caretta
Sleeth, Capt. Clark K., Morgantown
Strickland, Lt. Col. L. N., Widen

Updike, Major Raymond A., Montgomery
Vial, Capt. H. R. W., Charleston
Warden, Capt. William P., Charles Town
Warren, Major James O., Welch

NAVY

Basman, Lt. Comdr. Jack, Charleston
Caldwell, Comdr. George M., White Sulphur Springs
Daniels, Lt. Comdr. W. F., Huntington
French, Comdr. A. M., Logan
Gage, Comdr. E. Lyle, Bluefield
Jordan, Comdr. E. V., Charleston
Kessel, Capt. Russell, Charleston

Lewis, Comdr. C. E., Charleston
McClung, Lt. Comdr. William D., Richwood
Moore, Lieut. Moore, Jr., Beckley
Scott, Comdr. Francis A., Huntington
Smith, Comdr. Clyde A., Beckley
Sonneborn, Lt. Comdr. Robert M., Wheeling
Strange, Capt. W. W., Huntington

Thornhill, Comdr. William A., Jr., Charleston
Widmeyer, Comdr. Robert S., Parkersburg
Yeager, Lt. Comdr. William R., Parkersburg

Capt. Cecil A. Jarrell, formerly of Belle and Charleston, has been released from military service and has located for practice at 1509-A Washington Street, West Charleston.

* * *

Dr. Carl S. Bickel, of Wheeling, has been released from military service and has been taking postgraduate work at New York Postgraduate Hospital. Following this, he plans to take a course in caudal analgesia. He is expected to return to practice about February 1.

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Capt. Louis Y. Peskoe, formerly of Boomer, has just returned from service in Italy with the 34th combat infantry. He is on terminal leave and is visiting his family at Laurinburg, North Carolina. Captain Peskoe received the Bronze Star for action in May, 1944, at the battle of Lanuvio, Italy.

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Capt. John E. Echols, of Richwood, has been released from military service and has resumed civilian practice at No. 2 East Main Street in that city, where he is associated with Dr. W. E. Echols.

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Major Gene M. Harsha, of Sistersville, has been released from military service. He resumed civilian practice in that city on December 17, 1945, with offices in the Thistle Building.

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Dr. Gordon L. Todd, Jr., recently released from service, is located at the Memorial Hospital, Princeton, West Virginia.

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Capt. Clark K. Sleeth, of Morgantown, has returned from military service and is located at the West Virginia University Health Center in that city.

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Capt. Leonard Eckmann, of South Charleston, is on terminal leave from the Army and is in New York where he plans to do some postgraduate work before resuming practice in his home community.

* * *

Captain Morris H. O'Dell, of South Charleston, has just recently been released from active duty and is visiting at his home prior to accepting an appointment for a hospital residency in urology. He was attached to the 36th Infantry Division, and returned to the states in August, 1945, after 28 months' service overseas.

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Major Raymond A. Updike, of Montgomery, is home on terminal leave, and after February 1 will reopen his offices for general practice at 412½ Third Avenue. Major Updike had been stationed in the China-Burma-India theatre.

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Major Philip Johnson, of Fairmont, recently released from military service, has reopened his offices in the Deveny Building, in that city.

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Dr. Vincent T. Churchman, home in Charleston on terminal leave from the Navy, has received his promotion to captain in the naval reserve. Dr. Russell Kessel, who has arrived home from the Pacific, has also been promoted to captain in the naval reserve. He was recently serving as execu-

tive officer of a hospital at Okinawa, where his unit was commended for the evacuation and care of patients during the typhoon there on October 9-10. Dr. Kessel expects to resume his practice of surgery and gynecology in Charleston shortly after the first of the year.

* * *

According to a release from the Public Relations Office, Headquarters, Delta Base Section, Major William L. Claiborne, of Huntington, is executive officer of the 227th General Hospital, one of the largest of its kind located in France. After accepting a commission in the Army in August, 1942, Major Claiborne was engaged in training medical personnel for over a year at Camp Pickett, Virginia. He arrived in England in June, 1944, being assigned to the 135th General Hospital as chief of the communicable disease section. During the war he aided in the evacuation of battle casualties from Germany and France.

* * *

Commander Francis A. Scott (MC), USNR, of Huntington, who has been released from active duty with the Navy, has returned to his home community and resumed private practice at 1139 Fourth Avenue.

* * *

Commander Willard F. Daniels (MC), of Huntington, has also been released from active duty and has resumed practice in that city.

* * *

Capt. R. W. Coplin, of Huntington, recently released from military service, has resumed practice at 1522 Sixth Avenue.

* * *

Capt. Godfrey L. Beaumont, of New Cumberland, has been released from military service and has resumed practice at his former location on Second Avenue in that city.

* * *

Major Carl B. Hall, formerly of Red Jacket, is on terminal leave from the Army and at present is visiting his parents in Charleston.

* * *

Commander Everett Lyle Gage, of Bluefield, has been released from active duty with the Navy and will return to practice at the Bluefield Sanitarium early in February.

* * *

Major James O. Warren, of Welch, whose terminal leave from the Army will expire early in January, will return to practice at Grace Hospital in that city.

* * *

Lt. Comdr. William D. McClung (MC), USNR, and Captain James E. McClung, both of Richwood, have recently returned from military service and have located at the McClung Hospital in that city. Commander McClung, who has been serving with the Naval Air Transport Service, was stationed on Samar, P. I., and Captain McClung, who has been in the ETO for over two years, served as flight surgeon with the 368th Bomber Squadron. He was stationed at Gibraltar after V-E Day and remained there until his release from active duty early in December.

UNIFORM PROCEDURE FOR TB AID

A change in the method of determining eligibility for state aid to tuberculous patients requiring sanatorium care and pneumothorax refills has been announced by Dr. R. L. Smith, acting director of the bureau of tuberculosis control.

The new procedure, which will permit a more equitable consideration of cases and which will systematize fiscal handling, is in line with the provisions of a cooperative arrangement recently made by Dr. J. E. Offner, state health commissioner, with the DPA, which provides that that agency is to supply social and financial information concerning the families of patients.

Details of the new program will be handled by Mr. Charles W. Rogers, formerly of New Martinsville, who will have headquarters in the bureau of tuberculosis control, in Charleston. Mr. Rogers, who is a trained social worker, will serve in a liaison capacity between the bureau, local health departments, offices of the DPA, and tuberculosis sanatoria.

Doctors who have tuberculous patients needing sanatorium care, the cost of which they are unable to meet themselves, will fill out and sign an application for admission to a state sanatorium. This application may be signed by a county health officer if a doctor has not been in charge of the case. The application is to be presented to the local DPA by the patient or by a responsible representative. An investigator for the department will then complete a certified report concerning family income and expenses and will forward the report to the bureau of tuberculosis control, which will determine eligibility for state aid. No delay will be occasioned in cases where the families of patients are already known to DPA workers.

Persons eligible for state aid will be certified to a sanatorium, and the patient will be advised when to report for hospitalization. A person found ineligible for a state-subsidized bed will have his application returned, and he may then submit it directly to the sanatorium by agreeing to pay the required fee of $1.00 per day per patient.

When a state aid patient is discharged from the sanatorium with the approval of the medical staff, recommended pneumothorax refills may be paid for out of state funds. The patient himself selects a doctor who is qualified under the standards adopted by the public health council and a pneumothorax referral is forwarded for the same to the bureau of tuberculosis control, which, in turn, transmits an authorization for treatment to the doctor. Pneumothorax refills are not paid for when a patient leaves a sanatorium without official permission.

Patients who are already paying for sanatorium treatment and care may apply for state aid through a county health officer if he later becomes unable to continue such payments, and this application is processed under the same method provided for consideration of original applications for state aid.

DR. CHAPMAN TRANSFERRED TO NORFOLK

Dr. A. L. Chapman, P. A. Surgeon, USPHS, who served as deputy state health commissioner from July 1, 1944, until the appointment of Dr. B. H. Pollock as permanent deputy on October 1, 1945, has been transferred to Norfolk, Virginia, where he is assigned to the city health department.

West Virginia State Medical Association

ROSTER OF MEMBERS BY SOCIETIES

(January 1, 1946)

BARBOUR-RANDOLPH-TUCKER

Ashworth, Glenn ..... Philippi
*Bosworth, J. L. ..... Elkins
Butt, A. P. ..... Elkins
‡Chenoweth, P. C. ..... Elkins
**Condry, R. J. ..... Elkins
‡Conrad, H. A. ..... Elkins
‡Euphrat, Edwin J. ..... Elkins
Golden, B. I. ..... Elkins
Goodwin, T. M. ..... Elkins
Gray, P. L. ..... Elkins
*Hall, C. H. ..... Elkins
*Hamilton, E. M. ..... Belington
Harper, W. G. ..... Elkins
Houston, Robt. A. ..... Sunbury, (Pa.)
Huffman, Jacob S. ..... Dayton, (Va.)
Jeffreys, Edna M. ..... Philippi
**King, L. S. ..... Philippi
Levy, Fritz ..... Elkins
Liggett, B. L. ..... Mill Creek
Lyon, F. K. ..... Parsons
‡Main, Emory H. ..... Philippi
**Martin, Joseph E. ..... Elkins
Meyer, Seymour W. ..... Elkins
Michael, G. H. ..... Parsons
Miller, J. L. ..... Thomas
Moore, S. G. ..... Harper's Ferry
Moyers, Emmet D. ..... Norton
**Murphy, Franklin B. ..... Philippi
**Myers, E. E. ..... Philippi
Myers, H. C. ..... Philippi
**Myers, Junior ..... Philippi
Myers, K. J. ..... Philippi
‡Nefflen, L. H. ..... Elkins
*Owens, H. K. ..... Elkins
Parker, H. S. ..... Chicago, (Ill.)
**Roberts, Donald R. ..... Elkins
Skar, S. J. ..... Davis
Small, Maurice J. ..... Parsons
Stroud, C. G. ..... Shinnston
Tabor, Jack H. ..... Dailey
Trippett, K. H. ..... Galloway
‡Weisman, S. ..... Parsons
Whiteside, W. E. ..... Parsons
Whipple, Ralph U. ..... Elkins
Woodford, J. R. ..... Philippi
**Woodford, T. L. ..... Belington

BOONE

Aliff, Paul ..... Montcoal
‡Ballard, O. D. ..... Van
Barbour, W. L. ..... Whitesville
Calfee, W. R. ..... Whitesville
Glover, A. E. ..... Madison
Harless, W. F. ..... Madison
Hill, David H. ..... Madison
Hunter, R. L. ..... Madison
Lewis, A. C. ..... Seth
Pauley, D. F. ..... Jeffrey
Prather, F. G. ..... Wharton
Wilson, I. O. ..... Highcoal

BROOKE

**Beoher, W. T. ..... Wellsburg
**Hegner, H. L. ..... Wellsburg
‡Jacob, S. S. ..... Bethany

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‡ In Military Service
* Honorary Member
** Released from Military Service

Matson, F. L. ..... Wellsburg
Megahan, C. R. ..... Follansbee
McGraw, Ralph ..... Follansbee
McMullen, J. P. ..... Wellsburg
Otte, R. C. ..... Wellsburg
Palmer, J. B. ..... Wellsburg

CABELL

Baber, J. H. ..... Huntington
Barker, J. F. ..... Huntington
‡Beard, H. E. ..... Huntington
Beckner, W. F. ..... Huntington
Biern, O. B. ..... Huntington
Bloss, J. R. ..... Huntington
Bobbitt, R. M. ..... Huntington
‡Boso, Clarence H. ..... Huntington
Bourn, W. D. ..... Barboursville
Brandabur, J. J. ..... Huntington
Brown, B. F. ..... Huntington
Brown, F. A. ..... Huntington
**Brown, J. R. ..... Huntington
*Bruns, W. F. ..... Ceredo
‡Calvert, R. L. ..... Chelyan
Campbell, Orman C. ..... Hamlin
Chambers, V. L. ..... Huntington
Christian, Leo ..... Huntington
‡Claiborne, W. L. ..... Huntington
Clay, C. Stafford ..... Huntington
‡Coffey, F. L. ..... Huntington
**Cook, J. R. ..... Huntington
**Coplin, Robt. W. ..... Huntington
*Crews, A. W. ..... Huntington
Cronin, D. J. ..... Huntington
Curry, R. H. ..... Barboursville
**Daniels, W. F. ..... Huntington
‡Dodson, Ross ..... Huntington
**Duncan, C. S. ..... Huntington
‡Evans, Edward J. ..... Huntington
Farnsworth, F. F. ..... Milton
Ferguson, J. W. ..... Kenova
Folsom, T. G. ..... Huntington
Ford, C. P. S. ..... Huntington
**Ford, J. C. ..... Huntington
‡Gang, L. B. ..... Huntington
‡Garred, E. W. ..... Milton
Garrett, B. D. ..... Kenova
Gerge, Cole D. ..... Huntington
Gerlach, E. B. ..... Huntington
Gibson, A. P. ..... Huntington
Grimm, W. O. ..... Huntington
Guthrie, J. A. ..... Huntington
Hamilton, O. L. ..... Huntington
Hardman, J. C. ..... Washington (D.C.)
*Hardwick, R. ..... Huntington
Harwood, I. R. ..... Huntington
Hatfield, H. D. ..... Huntington
*Hawes, C. M. ..... Huntington
Hayman, J. S. ..... Huntington
*Hereford, W. D. ..... Huntington
*Hicks, I. C. ..... Huntington
Hines, N. F. ..... Huntington
Hirschman, I. I. ..... Huntington
Hodges, F. C. ..... Huntington
Hoffman, C. A. ..... Huntington
Hoitash, F. J. ..... Huntington
Hubbard, J. E. ..... Huntington
‡Humphrey, E. J. ..... Huntington
**Hunter, W. B. ..... Huntington
Hutchison, J. L. ..... Huntington
Irmen, F. A. ..... Huntington
Jaskiewicz, C. F. ..... Huntington
Johnson, G. D. ..... Huntington
Jones, A. S. ..... Huntington
Kappes, W. C. ..... Huntington
Kessler, A. D. ..... Huntington
Ketchum, Dorsey ..... Huntington
**Klumpp, J. S. ..... Huntington
Lusher, H. V. ..... Huntington
‡Lyon, G. M. ..... Huntington
*MacKenzie, A. R. ..... Huntington
Mackey, W. K. ..... Huntington
Marple, F. O. ..... Huntington
‡Martin, W. B. ..... Huntington
McClellan, G. O. ..... West Hamlin
‡Meek, E. M. ..... Huntington
Moore, J. Hallock ..... Huntington
Moore, L. J. ..... Huntington
Moore, M. B. ..... Huntington
Moore, T. W. ..... Huntington
Morrison, G. C. ..... Huntington
‡Muller, H. E. ..... Huntington
Neal, W. E. ..... Huntington
‡Neal, W. L. ..... Huntington
Owens, Thelma V. ..... Huntington
Parsons, W. J. ..... Huntington
Plymale, Clarence ..... Huntington
‡Polan, Chas. M. ..... Huntington
Porter, W. J. ..... Wayne
Ratcliffe, G. A. ..... Huntington
Reaser, E. F. ..... Huntington
Reynolds, C. O. ..... Huntington
Reynolds, Otis E. ..... Huntington
Richmond, L. C. ..... Milton
Rife, J. W. ..... Kenova
Rose, E. E. ..... Huntington
Rowley, W. N. ..... Huntington
Rutherford, A. G. ..... Huntington
Schuller, F. X. ..... Huntington
**Scott, F. A. ..... Huntington
Shafer, E. E. ..... Huntington
Silver, Harry ..... Milton
*Sloan, R. M. ..... Huntington
Smith, Harry A. ..... Madison
Steenbergen, J. H. ..... Huntington
Stemmerman, Marguerite ..... Huntington
Stevens, Richard J. ..... Huntington
Stevens, Sarah L. C. ..... Huntington
Stotts, Roscoe ..... Kenova
**Strange, W. W. ..... Huntington
Swann, W. C. ..... Huntington
Taylor, C. T. ..... Huntington
**Taylor, Ewen ..... Huntington
Taylor, I. W. ..... Huntington
Thomas, Myrtle M. ..... Huntington
Van Metre, R. S. ..... Huntington
Vest, W. E. ..... Huntington
‡Vest, W. E., Jr. ..... Huntington
Walden, G. W. ..... West Hamlin
Webb, Joseph P. ..... Huntington
**Weinstein, Stanley ..... Huntington
Wilkinson, R. J. ..... Huntington
Willis, C. A. ..... Clarksburg
Willis, C. G. ..... Huntington
Wright, C. B. ..... Huntington
Wylie, R. M. ..... Huntington

CENTRAL WEST VIRGINIA

*Allen, S. P. ..... Webster Springs
Andrew, H. M. ..... Weston
**Bowyer, A. B. ..... Elkview
Brown, E. S. ..... Summersville
Brown, H. S. ..... Sutton
Burton, G. M. ..... Weston
Burton, S. H. ..... Weston

Cofer, J. M. . . . . Bergoo
Cooper, E. R. . . . . Troy
Corder, G. C. . . . . Jane Lew
Cutright, R. G. . . . . Buckhannon
Deeds, L. W. . . . . Buckhannon
Dodrill, J. B. . . . . Webster Springs
*Dunn, Hugh . . . . . Richwood
Eakle, J. C. . . . . Sutton
Eakle, O. O. . . . . Sutton
**Echols, J. E. . . . . Richwood
Echols, W. E. . . . . Richwood
‡Ferrell, R. M. . . . . Webster Springs
Fisher, E. L. . . . . Gassaway
Fisher, R. M. . . . . Weston
Ford, R. J. . . . . Spencer
Forman, Worth B. . . . . Buckhannon
Garrison, Harry A. . . . . Weston
**Hartman, I. F. . . . . Buckhannon
Hill, G. D. . . . . Camden-on-Gauley
Hill, L. O. . . . . Camden-on-Gauley
*Hudkins, O. L. . . . . Weston
‡Huffman, J. C. . . . . Buckhannon
Huffman, W. W. . . . . Gassaway
Hunter, E. H. . . . . Webster Springs
*King, W. P. . . . . Weston
Lawson, A. F. . . . . Weston
Leef, J. L. . . . . Richwood
Long, A. E. . . . . Weston
**McClung, James E. . . . . Richwood
McClung, James . . . . . Richwood
**McClung, W. D. . . . . Richwood
Millman, T. H. . . . . Richwood
Morrison, M. T. . . . . Sutton
Nelson, William . . . . . Richwood
Page, B. L. . . . . Buckhannon
Peters, D. C. . . . . Richwood
Rohr, C. B. . . . . Alum Bridge
Rusmisell, J. A. . . . . Buckhannon
**Rusmisell, J. A., Jr. . . . . Buckhannon
Smith, W. T. . . . . Glenville
Snaith, Theresa . . . . . Weston
*Snyder, George . . . . . Weston
Stalnaker, Guy . . . . . Glenville
Trinkle, E. A. . . . . Weston
Van Tromp, H. O. . . . . French Creek
*Walker, Everett . . . . . Barboursville

DODDRIDGE

Poole, A. . . . . West Union
White, R. S. . . . . West Union

EASTERN PANHANDLE

‡Armentrout, A. W. . . . . Martinsburg
Bitner, E. H. . . . . Martinsburg
‡Clapham, R. E. . . . . Martinsburg
Eagle, A. B. . . . . Martinsburg
‡Fox, M. R. . . . . Charles Town
‡Glenn, Marshall . . . . . Charles Town
Glover, V. L. . . . . Martinsburg
Guthrie, J. K. . . . . Martinsburg
**Haltom, W. L. . . . . Martinsburg
Hendrix, N. B. . . . . Martinsburg
Link, Vaughn . . . . . Shepherdstown
Martin, G. O. . . . . Martinsburg
McFetridge, S. Elizabeth . Shepherdstown
Morison, G. P. . . . . Charles Town
Oates, Max . . . . . Martinsburg
Oates, T. K. . . . . Martinsburg
**Porterfield, M. H. . . . . Martinsburg
Power, C. G. . . . . Martinsburg
**Shaw, D. J. . . . . Berkeley Springs
Talbott, R. B. . . . . Martinsburg
Tonkin, H. G. . . . . Martinsburg
Van Metre, J. L. . . . . Charles Town
‡Wallace, W. A. . . . . Martinsburg
Warger, Halvard . . . . . Shepherdstown
**Warden, W. P. . . . . Wardensville
Waters, Z. J. . . . . Baltimore, (Md.)
Willard, E. H. . . . . Berkeley Springs

FAYETTE

Bays, A. E. . . . . Montgomery
‡Becker, Philip L. . . . . Kimberly
Bilger, F. W. . . . . McComas
Bittinger, W. P. . . . . Summerlee
Brugh, B. F. . . . . Clearwater (Fla.)
‡Butterfield, D. L. . . . . Milburn
‡Cardey, N. L. . . . . Winona
Carter, Eugene S., Jr. . . . . Montgomery
Carter, J. Marshall . . New Orleans, (La.)
‡Crank, G. O. . . . . Lawton
Davis, W. B. . . . . Rainelle
**Dickerson, L. A. . . . . Oak Hill
Englefried, C. H. . . . . Charleston
‡Feldman, John L. . . . . Longacre
Frazier, Claude . . . . . Winona
**Friedman, Norman . . . . . Cleveland, (O.)
Gordon, P. L. . . . . Powellton
Harless, L. R. . . . . Gauley Bridge
Higginbotham, Upshur . . . . . Bluefield
Hodges, G. G. . . . . Mt. Hope
‡Hresan, M. G. . . . . Minden
Jackson, H. M. . . . . Brooklyn
‡Jarrett, J. N. . . . . Oak Hill
Jones, E. E., Jr. . . . . Mount Hope
King, W. E. . . . . Montgomery
Laird, T. K. . . . . Montgomery
Laird, William R. . . . . Montgomery
‡Lamb, R. M. . . . . Winona
Martin, H. C. . . . . East Rainelle
McGehee, M. W. . . . . Huntington
Merriam, C. G. . . . . Page
Moore, M. A. . . . . Longacre
Moser, L. A. . . . . Charleston
‡Nolan, L. E. . . . . Montgomery
Nutter, E. V. . . . . Gauley Bridge
Peck, R. S. . . . . Cannelton
**Peskoe, L. Y. . . . . Boomer
Pope, Thos. B. . . . . Kingston
Puckett, B. F. . . . . Oak Hill
Reeves, J. N. . . . . Charleston
Scott, W. W. . . . . Oak Hill
*Shaffer, J. S. . . . . Montgomery
*Shirkey, D. W. . . . . Montgomery
Skaggs, H. C. . . . . Montgomery
Smith, G. A. . . . . Montgomery
Stallard, C. W. . . . . Montgomery
Thompson, E. B. . . . . Montgomery
Thompson, J. B. . . . . Oak Hill
Troutman, H. F. . . . . Logan
**Updike, R. A. . . . . Montgomery
Watkins, C. E. . . . . Harvey

GREENBRIER VALLEY

Compton, J. W. . . . . Ronceverte
Ferrell, A. D. . . . . Ronceverte
Gunning, H. D. . . . . Ronceverte
*Hinsdale, Guy . . . . . Charlottesville, (Va.)
Jackson, C. C. . . . . East Rainelle
*Kirkpatrick, H. L. . White Sulphur Springs
Klausman, Wm. A. . . . . Anjean
Lanham, A. G. . . . . Ronceverte
Leech, J. G. . . . . Quinwood
Lemon, C. W. . . . . Lewisburg
Mahood, C. F. . . . . Alderson
‡Mamick, Stephen . White Sulphur Springs
Matney, T. G. . . . . Peterstown
‡McCauley, E. W. . . . . Rainelle
McClintic, C. F. . . . . Williamsburg
McFerrin, S. A. . . . . Renick
Myles, W. E. . . . . White Sulphur Springs
Preston, D. G. . . . . Lewisburg
Prillaman, P. E. . . . . Ronceverte
‡Todd, L. B. . . . . Quinwood
Wall, C. I. . . . . Rainelle
Williams, L. . . . . Beelick Knob

HANCOCK

**Beaumont, G. L. . . . . New Cumberland
Bogarad, M. . . . . Weirton
‡Boggs, Edward H. . . . . Hinton
Brand, J. M. . . . . Chester
‡Bruce, T. H. . . . . New Cumberland
‡Fisher, J. E. . . . . New Cumberland
Focer, R. L. . . . . Weirton
**McNinch, E. R. . . . . Weirton
‡Polen, F. E. . . . . Hollidays Cove
‡Prioletti, V. . . . . Weirton
Richmond, J. E. . . . . Weirton
Rigas, George S. . . . . Weirton
Rinehart, A. B. . . Corpus Christie, (Tex.)
Schwartz, L. O. . . . . Weirton
Slate, T. A. . . . . Hollidays Cove
Thompson, J. L. . . . . Weirton
Whitaker, L. A. . . . . Weirton
Wolpert, Milton . . . . . Chester
**Yurko, Anthony . . . . . Hollidays Cove

HARRISON

**Allman, W. H. . . . . Clarksburg
Brake, B. S. . . . . Clarksburg
Brannon, E. H. . . . . Bridgeport
Brennan, J. T. . . . . Clarksburg
Chandler, F. C. . . . . Bridgeport
Coffindaffer, R. S. . . . . Shinnston
Cruikshank, D. P. . . . . Lumberport
Davis, Edward . . . . . Salem
Davis, W. M. . . . . Bridgeport
*Esker, H. H. . . . . Clarksburg
**Evans, G. F. . . . . Clarksburg
‡Farrell, Marcus E. . . . . Clarksburg
‡Fisher, C. F. . . . . Clarksburg
Flowers, Earl N. . . . . Clarksburg
*Folk, John . . . . . Bridgeport
**Genin, F. G. . . . . Clarksburg
‡Gilman, Joseph . . . . . Clarksburg
‡Gocke, Jack T. . . . . Clarksburg
Gocke, Thomas . . . . . Clarksburg
Gocke, W. T. . . . . Clarksburg
‡Golz, H. H. . . . . Clarksburg
Grant, Sylvia S. . . . . Park
Greer, C. C. . . . . Clarksburg
**Hall, S. S. . . . . Clarksburg
Hanifan, R. K. . . . . Detroit, (Mich.)
Harris, T. G. . . . . West Milford
Haynes, H. H. . . . . Clarksburg
‡Hess, D. S. . . . . Shinnston
*Hill, E. A. . . . . Greenwood
Hodge, Ben E. . . . . Clarksburg
‡Humphries, R. T. . . . . Clarksburg
Jabaut, S. W. . . . . Shinnston
Jackson, Kenna . . . . . Clarksburg
Jarvis, C. C. . . . . Clarksburg
Kelly, A. O. . . . . Wallace
Kemper, A. J. . . . . Lost Creek
Kerr, John C. . . . . Clarksburg
Ladwig, O. W. . . . . Wilsonburg
Langfitt, F. V. . . . . Clarksburg
Lembright, J. F. . . . . Clarksburg
Linger, R. B. . . . . Clarksburg
Lough, D. H. . . . . Clarksburg
**McClung, James R. . . . . Clarksburg
‡McCuskey, John F. . . . . Clarksburg
McGuire, J. P. . . . . Clarksburg
Mills, L. H. . . . . Clarksburg
Neal, L. E. . . . . Clarksburg
‡Nutter, Paul J. . . . . Clarksburg
‡Nutter, R. B., Jr. . . . . Lumberport
Nutter, R. J. . . . . Clarksburg
*Ogden, C. R. . . . . Clarksburg
Owens, W. T. . . . . Clarksburg
Page, J. E. . . . . Clarksburg
*Pendleton, E. . . . . Clarksburg

‡ In Military Service
* Honorary Member
** Released from Military Service

Pletcher, R. O. ..... Lost Creek
Post, A. T. ..... Clarksburg
Post, C. O. ..... Clarksburg
Post, S. H. ..... Volga
**Ralston, James ..... Clarksburg
Repass, James C. ..... Lumberport
‡Riheldaffer, Wm. H. ..... Romney
*Riley, R. M. ..... Nutter Fort
Ritter, E. E. ..... Salem
Rose, George W. ..... Clarksburg
Slater, C. N. ..... Clarksburg
Sloan, H. E. ..... Clarksburg
Spelsburg, W. W. ..... Clarksburg
Stephenson, J. E. ..... Clarksburg
Strother, W. L. ..... Salem
Thomas, H. V. ..... Clarksburg
Tucker, E. D. ..... Nutter Fort
‡Weaver, Andrew J. ..... Clarksburg
*Wehner, E. F. ..... Clarksburg
Whisler, H. A. ..... Clarksburg
Wilkinson, B. W. ..... Clarksburg
Williams, J. F., Jr. ..... Clarksburg
Wilson, J. E. ..... Clarksburg
‡Wilson, James E., Jr. ..... Clarksburg
‡Wornal, L. S. ..... Shinnston
Wright, E. B. ..... Clarksburg
**Wright, W. B. ..... Clarksburg
‡Zinn, L. D. ..... Clarksburg

KANAWHA

Albrecht, M. ..... Charleston
‡Aliff, Robert Carl ..... Charleston
Amick, A. E. ..... Charleston
*Amick, A. L. ..... Charleston
*Anderson, Maury ..... Dunbar
Anderson, R. L. ..... Charleston
Angell, H. W. ..... Charleston
Angstadt, N. G. ..... Charleston
‡Ashman, H. ..... Gallagher
Baer, R. E. ..... South Charleston
Bailey, H. A. ..... Charleston
Bailey, R. W. ..... Hurricane
**Baldock, H. E. ..... Charleston
Banks, J. Bankhead ..... Charleston
Barber, D. N. ..... Charleston
Barber, T. M. ..... Charleston
**Basman, Jack ..... Charleston
*Baum, Henry ..... Charleston
Beddow, H. M. ..... Charleston
**Bivens, S. L. ..... Charleston
Black, W. P. ..... Charleston
Blagg, B. V. ..... South Charleston
Blake, T. H. ..... St. Albans
Bobbitt, O. H. ..... Charleston
**Boiarsky, Julius ..... Charleston
Bonar, M. L. ..... Charleston
**Bradford, Bert, Jr. ..... Charleston
Brady, A. Spates, Jr. ..... Charleston
**Brick, John P. ..... Charleston
Brown, H. M. ..... Charleston
*Brown, R. J. ..... Charleston
Buff, I. E. ..... Charleston
Buford, R. K. ..... Charleston
Bull, S. W. ..... Spencer
Burdette, Rex A. ..... Charleston
Cannaday, J. E. ..... Charleston
Capito, G. B. ..... Charleston
‡Carlson, F. B. ..... Charleston
Champe, Preston ..... Charleston
**Chandler, A. C. ..... Charleston
**Churchman, V. T. ..... Charleston
Clark, F. A. ..... Charleston
**Condry, John C. ..... Charleston
**Cooke, W. L. ..... Charleston
*Copeland, C. E. ..... Charleston
Cox, L. E. ..... Charleston
*Davis, E. A. ..... Charleston
‡Dawson, R. O. ..... Dunbar
DeBell, A. W. ..... Malden
Dent, D. A. ..... Charleston
Duling, M. S. ..... Charleston
Dunlap, J. L. ..... Nitro
Dunn, R. H. ..... South Charleston
**Eckman, Leonard ..... South Charleston
Elkin, W. Paul ..... Charleston
Erwin, F. L. ..... Burnwell
‡Escue, H. M. ..... Charleston
Eves, F. P. ..... Charleston
Fisher, H. H. ..... Dunbar
Fleshman, C. M. ..... Clendenin
Frame, R. I. ..... Sharples
Frank, Ludwig ..... Charleston
Frazier, J. W. ..... Charleston
Gallagher, Mary V. ..... Charleston
Gerhardt, P. R. ..... Charleston
‡Given, A. J. ..... Rensford
Glass, H. R. ..... Charleston
Glass, W. J. ..... Sissonville
**Glassman, Dan ..... Charleston
**Godbey, J. R. ..... Charleston
Gordon, A. T. ..... Spencer
Gott, E. Fred ..... Charleston
‡Grace, J. E. ..... Cabin Creek
Grisinger, G. F. ..... Charleston
‡Groves, Owen A. ..... Charleston
**Hager, J. L. ..... Charleston
**Haley, John B. ..... Charleston
**Haley, P. A., II ..... Charleston
Halloran, R. O. ..... Charleston
Hamrick, R. E. ..... Charleston
Hamrick, R. S. ..... St. Albans
Hardesty, W. L. ..... Charleston
Harper, C. A. ..... Clendenin
Harper, O. M. ..... Clendenin
**Hash, J. W. ..... Charleston
Hassig, Donald G. ..... Charleston
Hayes, E. R. ..... Chelyan
Heffner, G. P. ..... Charleston
Henson, E. B. ..... Charleston
**Hills, H. M., Jr. ..... Charleston
Hoffman, W. E. ..... Charleston
Hoke, L. I. ..... Nitro
Holcombe, V. E. ..... Charleston
‡Houck, C. L. ..... Carbon
Houck, M. R. ..... Carbon
Howell, H. H. ..... Madison
Hudgins, A. P. ..... Charleston
Hunter, J. Ross ..... Charleston
Hutchinson, T. H. ..... Malden
Ireland, R. A. ..... Charleston
Irwin, G. G. ..... Charleston
**Jarrell, C. A. ..... Charleston
‡Jarrett, John T. ..... Dunbar
Jarrett, L. A. ..... Dunbar
**Jones, Ralph J. ..... Charleston
**Jordan, E. V. ..... Charleston
‡Kaufman, J. R. ..... Charleston
Kessel, C. R. ..... Ripley
**Kessel, Ray ..... Charleston
**Kessel, Russell ..... Charleston
Ketchum, R. D. ..... Charleston
Kuhn, Harold H. ..... Charleston
Lampton, Arthur K. ..... Gallagher
Lance, V. L. ..... Charleston
‡Laslie, J. C. ..... Charleston
Law, H. D. ..... Charleston
**Lewis, C. E. ..... Charleston
‡Lilly, Goff P. ..... Charleston
Lilly, J. P. ..... Charleston
Litton, A. C. ..... Charleston
Litsinger, E. A. ..... Charleston
Louft, R. R. ..... Charleston
**Lutz, John E. ..... Charleston
Mace, V. E. ..... Charleston
‡MacNamara, R. J. ..... Charleston
**Mantz, T. Paul ..... Charleston
‡Marquis, J. N. ..... Charleston
‡Matthews, L. B. ..... Charleston
McClanahan, Rose ..... Charleston
McClue, A. E. ..... Dunbar
McClure, U. G. ..... Charleston
McKinley, C. Scott ..... Charleston
McLaughlin, Ralph S. ..... Charleston
*McMillan, W. A. ..... Charleston
McMillan, W. O. ..... Charleston
McPherson, H. D. ..... Eskdale
Mendeloff, M. I. ..... Charleston
Mican, H. M. ..... Charleston
Milhoan, A. W. ..... Nitro
Miyakawa, George ..... Charleston
Morison, O. N. ..... Charleston
Mynes, L. H. ..... Charleston
Nale, T. W. ..... Charleston
**Newhouse, N. H. ..... Charleston
Niedermyer, J. W. ..... Charleston
**Palmer, G. F. ..... Charleston
Peck, Earl M. ..... Charleston
Pence, R. E. ..... South Charleston
**Peters, J. T. ..... South Charleston
‡Peterson, V. L. ..... Charleston
*Phillips, S. H. ..... St. Albans
Point, W. W. ..... Charleston
**Pollock, B. H. ..... Charleston
‡Polsue, W. C. ..... Charleston
Preiser, Phillip ..... Charleston
‡Press, Edward ..... Charleston
Price, A. M. ..... Charleston
Price, R. B. ..... Charleston
**Pushkin, Willard ..... Charleston
Putschar, W. J. G. ..... Charleston
Reed, T. G. ..... Charleston
‡Reel, F. C. ..... Charleston
‡Revercomb, P. H. ..... Charleston
Ritter, H. H. ..... Charleston
Robertson, G. C. ..... Charleston
Robertson, H. L. ..... Charleston
*Robertson, W. B. ..... Kearneysville
Robertson, W. S. ..... Charleston
Robins, J. E., Jr. ..... Charleston
Robinson, J. H. ..... Charleston
Rohr, J. U. ..... Charleston
Rucker, J. E. ..... Charleston
*Schoolfield, G. C. ..... Charleston
‡Scott, C. N. ..... St. Albans
Seletz, A. A. ..... Charleston
Selman, J. H. ..... Charleston
Seltzer, Jos. P. ..... Charleston
**Shamblen, Earle ..... Charleston
Shawkey, A. A. ..... Charleston
‡Shepherd, E. M. ..... Charleston
Shepherd, W. S. ..... Charleston
Shirkey, W. F. ..... Charleston
Skaggs, J. S. ..... Montcoal
Skaggs, J. W. ..... Nitro
Smith, A. A. ..... Clay
Smith, B. A. ..... Spencer
**Smith, C. B. ..... Charleston
Souleyret, S. B. ..... Coalburg
**Soulsby, P. C. ..... Pratt
Spencer, Tracy N., Jr. ..... So. Charleston
Squire, E. W. ..... Charleston
**Staats, Charles ..... Charleston
Stanley, L. P. ..... Charleston
Starcher, R. C. ..... Ripley
Stewart, W. C. ..... Charleston
**Strickland, L. N. ..... Widen
Stork, A. R. ..... Charleston
‡Swart, H. A. ..... Charleston
Swint, B. H. ..... Charleston
Thompson, H. G. ..... Charleston
**Thornhill, W. A., Jr. ..... Charleston
‡Tuckwiller, P. A. ..... Charleston

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‡ In Military Service
* Honorary Member
** Released from Military Service

Vaughan, E. O. ..... St. Albans
‡Ward, Harold W. ..... Sutton
Watts, C. N. ..... Charleston
Webb, R. L. ..... Charleston
Whiteside, C. T. ..... Kayford
Wilkerson, W. V. ..... Prenter
Wilson, A. A. ..... Charleston
Wilson, W. B. ..... Charleston
*Wilson, W. H. ..... St. Albans
Woodall, R. E. ..... Charleston
Work, W. F. ..... Charleston

LOGAN

Altizer, A. E. ..... Accoville
*Aultz, L. L. ..... Ward
‡Bonar, Robert R. ..... Whitman
**Bond, Dewitt T. ..... Danielsville, Ga.
**Brammer, F. E. ..... Dehue
Brewer, W. E. ..... Logan
Carney, J. W. ..... Logan
Combes, L. G. ..... Holden
Davis, C. A. ..... Logan
Deason, V. A. ..... Logan
Farley, H. H. ..... Logan
**French, A. M. ..... Logan
Hamilton, W. P. ..... Chapmanville
Hively, H. D. ..... Ward
Jamison, Frank ..... Logan
‡Kruger, I. M. ..... Logan
Lawson L. W. ..... Logan
*Lawson S. B. ..... Logan
**Layman, L. H. ..... Holden
‡Lovejoy, U. C. ..... Omar
Lyons, J. W. ..... Holden
Matthews, W. E. ..... Durham (N. C.)
McClellan, W. T. ..... Ethel
Parker, W. H. ..... Braeholm
Patterson, J. L. ..... Holden
Poling, Owen ..... Eskdale
Roberts, R. W. ..... Man
*Round, F. L. ..... Holden
Rowan, W. S. ..... Logan
Scott, Robert K. ..... Lorado
Smith, B. D. ..... Amherstdale
Smith, T. C. ..... Slagle
‡Starcher, E. H. ..... Earling
Steele, L. E. ..... Logan
Sutphin, Mark ..... Logan
Tripplett, L. H. ..... Earling
Van Hoose, Harold ..... Mallory
Vaughan, R. R. ..... MacBeth

MARION

‡Baron, L. E. ..... Mannington
Barr, J. M. ..... Worthington
‡Blanton, J. L. ..... Fairmont
Bonar, James M. ..... Fairmont
Bressler, David ..... Monongah
*Brownfield, G. H. ..... Fairmont
Carter, C. J. ..... Fairmont
Clinton, J. B. ..... Fairmont
Collins, J. C. ..... Fairmont
Criss, H. L. ..... Fairmont
**Evans, Geo. T. ..... Idamay
Falconer, H. S. ..... Fairmont
‡Fleming, H. C. ..... Fairmont
‡Frye, R. R. ..... Mannington
Hamilton, D. D. ..... Mannington
Helmick, John P. ..... Fairmont
Hickson, Edward W. ..... Fairmont
*Holland, C. L. ..... Fairmont
Holland, E. A. ..... Fairmont
Jenkins, J. J. ..... Farmington
Jenkins, J. J., Jr. ..... Farmington
*Johnson, H. R. ..... Fairmont
**Johnson, Philip ..... Fairmont
‡Jones, R. Harold ..... Fairmont
Keister, H. S. ..... Fairmont
Kinney, C. L. ..... Idamay
‡Lambert, L. R. ..... Charleston
Lawson, C. S. ..... Fairmont
*Leahy, W. J. ..... Manington
‡Mallamo, J. T. ..... Fairmont
Miller, G. R. ..... Fairview
Moore, P. G. ..... Mannington
Morgan, G. V. ..... Fairmont
Norris, L. D. ..... Fairmont
Nunnally, Wm. Ord. ..... Fairmont
Offner, J. E. ..... Charleston
Orr, W. W. ..... Rachel
Parks, C. L. ..... Fairmont
‡Parks, Siegel W. ..... Fairmont
Ramage, C. M. ..... Fairmont
Rogers, F. B. ..... Fairmont
Romino, J. D. ..... Fairmont
Sowers, F. F. ..... Fairmont
Spencer, L. O. ..... Fairmont
Swisher, K. Y. ..... Fairview
*Trach, J. M. ..... Fairmont
Trach, J. P. ..... Fairmont
Traugh, G. H. ..... Fairmont
Tuckwiller, J. R. ..... Fairmont
Vacheresse, Edw., Jr. ..... Fairmont
**Van Horn, K. L. ..... Fairmont
Welton, W. A. ..... Fairmont
Wise, E. D. ..... Fairmont
Wright, E. O. ..... Fairmont
Yost, Herschel R. ..... Fairmont
Yost, Joe ..... Fairmont
Yost, Paul ..... Fairmont

MARSHALL

**Ashworth, Harold ..... Moundsville
Ashworth, R. A. ..... Moundsville
Benson, Don S. ..... Moundsville
‡Boggs, W. C. ..... Wheeling
Bone, B. F. ..... Moundsville
**Bradford, Wm. P. ..... Moundsville
Covert, O. F. ..... Moundsville
Dotson, Samuel C. Jr. ..... Cameron
*Fortney, M. J. ..... Hundred
Grimm, R. B. ..... Cameron
Hartwig, W. B. ..... Wheeling
Hill, W. G. C. ..... Moundsville
Kaufman, Edward L. ..... McMechen
Luikart, J. H. ..... Moundsville
‡McIlvain, W. E. ..... Moundsville
Peck, J. C. ..... Moundsville
Striebich, J. A. ..... Moundsville
Wilson, O. P. ..... Moundsville
Yoho, S. F. ..... Moundsville

MASON

Brown, C. Leonard ..... Point Pleasant
Bryant, R. F. ..... New Haven
Koenigsberg, M. ..... Philadelphia, Pa.
McElfresh, Edward V. ..... Pt. Pleasant
Petty, C. W. ..... Hartford

MERCER

**Bertling, M. H. ..... McComas
Bird, Ben W., Jr. ..... Princeton
Blaydes, J. E. ..... Bluefield
Calvert, J. W. ..... Lamar
Clements, B. S. ..... Matoaka
Connell, H. R. ..... Bluefield
‡Davis, H. C. ..... Bluefield, (Va.)
Davidson, S. G. ..... Bluefield
Fowlkes, R. H. ..... Bluefield
Fox, J. Francke ..... Bluefield
‡Fugate, R. C. ..... Bluefield
Gammage, F. V. ..... Bluefield
**Gage, E. L. ..... Bluefield
Goodall, F. C. ..... Princeton
‡Hale, Daniel ..... Princeton
**Harloe, W. M. ..... Princeton
Holroyd, F. J. ..... Princeton
Horton, E. W. ..... Bluefield
Hosmer, D. L. ..... Bluefield
‡Huff, Frank M. ..... Bluefield
Hughes, C. R. ..... Bluefield
Kelly, V. L. ..... Bluefield
‡King, O. G. ..... Bluefield
Lepper, D. B. ..... Bluefield
Magnussen, M. J. ..... Bluefield
Markell, J. I. ..... Princeton
McGuire, John ..... Bluefield
**Pace, L. J. ..... Princeton
Reynolds, C. J. ..... Bluefield
Rogers, R. O. ..... Bluefield
St. Clair, C. T. ..... Bluefield
St. Clair, C. T., Jr. ..... Bluefield
St. Clair, W. H. ..... Bluefield
St. Clair, W. H., Jr. ..... Bluefield
Shanklin, J. R. ..... Bluefield
Sinclair, M. W. ..... Bluefield
Slusher, W. C. ..... Bluefield
Steele, H. G. ..... Bluefield
Stuart, R. R. ..... Bluefield
Tanner, E. M. ..... Bluefield
Todd, G. L. ..... Princeton
**Todd, G. L., Jr. ..... Princeton
Van Reenan, A. C. ..... Bluefield
Vass, T. E. ..... Bluefield
Vermillion, J. R. ..... Princeton
Vermillion, Uriah ..... Athens
‡Weier, Karl E. ..... Bluefield
‡Wiser, Henry J. ..... Bluefield
Yost, J. W. ..... Princeton

MINGO

Bailey, Meryleen ..... Williamson
Bentley, C. M. ..... Freeburn (Ky.)
Boutwell, J. H. ..... Williamson
Boland, L. F. ..... Williamson
Brewster, G. W. ..... LaGrange (Ky.)
Burgess, W. H. ..... Williamson
Burien, Frank J. ..... Williamson
Easley, G. W. ..... Williamson
‡Gaskel, J. C. ..... Williamson
**Hall, Carl B. ..... Red Jacket
Hatton, Don V. ..... Williamson
Hays, H. C. ..... Williamson
Irvine, G. B. ..... Williamson
Johnson, J. E. ..... Stone, (Ky.)
Lawson, J. C. ..... Williamson
Maxwell, M. H. ..... Red Jacket
McClees, J. E. ..... Williamson
McClellan, Ernest E. ..... Stollings
Moore, M. P. ..... Williamson
Peery, C. E. ..... Majestic, (Ky.)
Poliakoff, Nathan ..... Williamson
Price, W. H. ..... Chattaroy
Quincy, F. B. ..... Williamson
Stepp, E. P. ..... Kermit
Zando, S. G. ..... Williamson

MONONGALIA

Baker, Wm. P. ..... Cleveland (Ohio)
Becker, M. E., Jr. ..... Morgantown
**Brannan, Dorsey ..... Morgantown
Bray, C. M. ..... Morgantown
Caserta, Peter ..... Morgantown
*Cobun, L. W. ..... Morgantown
Collins, A. B. ..... Blacksville
Cottle, S. W. ..... Morgantown
Crynock, P. D. ..... Morgantown
DeAngelis, Eugene ..... Morgantown

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‡ In Military Service
* Honorary Member
** Released from Military Service

Dent, Charles F. . . . . Morgantown
Fenton, C. C. . . . . Morgantown
Fisher, R. W. . . . . Morgantown
**Gerchow, K. E. . . . . Morgantown
Heiskell, E. F. . . . . Morgantown
Howell, W. H. . . . . Morgantown
Johnson, C. E. . . . . Morgantown
Johnson, P. C. . . . . Belle
King, H. V. . . . . Morgantown
Lawless, J. J. . . . . Morgantown
Madera, W. L. . . . . Morgantown
Mahan, Charles . . . . . Morgantown
Maxwell, G. R. . . . . Morgantown
McBee, T. Jud . . . . . Morgantown
‡Miller, F. R. . . . . Morgantown
**Moore, B. J. . . . . Morgantown
Moser, W. C. . . . . Morgantown
‡Oliver, Ward L. . . . . Morgantown
Phillips, G. W. . . . . Morgantown
**Pickett, J. C. . . . . Morgantown
**Post, D. M. . . . . Morgantown
Pride, C. B. . . . . Morgantown
‡Rich, H. A. . . . . Morgantown
Romine, C. C. . . . . Morgantown
‡Scherr, W. B. . . . . Morgantown
*Simpson, J. N. . . . . Morgantown
**Sleeth, C. K. . . . . Morgantown
**Stecker, J. F. . . . . Morgantown
Stemple, Margaret . . . . . Morgantown
*Stout, B. M. . . . . Morgantown
**Strawn, L. M. . . . . Morgantown
Summers, R. R. . . . . Charleston
‡Thompson, C. T. . . . . Morgantown
Thompson, James . . . . . Morgantown
**Trotter, J. H. . . . . Morgantown
Tucker, E. B. . . . . Morgantown
Van Liere, E. J. . . . . Morgantown
‡Warman, W. M. . . . . Morgantown
Whittlesey, F. R. . . . . Morgantown
*Wylie, C. B. . . . . Morgantown

McDOWELL

Anderson, J. H. . . . . Hemphill
Bailey, J. B. . . . . Davy
Bennett, J. A. . . . . Algoma
Bracey, A. H. . . . . Welch
Bracey, H. A. . . . . Welch
Bragonier, R. K. . . . . Keystone
Burger, Roy E. . . . . Welch
‡Butte, C. I., Jr. . . . . McDowell
Camper, H. G. . . . . Welch
‡Carr, A. B. . . . . War
‡Chandler, C. B. . . . . Iaeger
Chapman, C. B. . . . . Welch
Clark, C. T. . . . . Iaeger
Cochran, C. C. . . . . Kimball
Coontz, Otis H. . . . . Fontana, (Calif.)
Coulon, N. F. . . . . Thorpe
Counts, W. R. . . . . Welch
Davis, J. E. . . . . Welch
**Dunman, L. E. . . . . Gary
Dyer, N. H. . . . . Bartley
Edwards, R. H. . . . . Welch
Elliott, Boyce . . . . . Maybeury
Evans, G. P. . . . . Sweet Springs
Evans, H. P. . . . . Keystone
Frazier, Ralph . . . . . Fayetteville
**Gates, Edmond O. . . . . Welch
Gibson, E. D. . . . . Coalwood
**Goodwin, F. H. . . . . Bluefield
Hall, W. C. . . . . Welch
‡Hancock, H. J. . . . . Welch
Hatfield, D. D. . . . . Yukon

‡ In Military Service
* Honorary Member
** Released from Military Service

Jackson, C. F. . . . . Bradshaw
Johnston, C. F. . . . . Charlottesville (Va.)
Johnston, W. L. . . . . McDowell
Killey, J. C. . . . . Vivian
Kirk, E. H. . . . . Richlands (Va.)
‡Kroll, Peter G. . . . . Welch
La Prade, F. E. . . . . Tampa (Fla.)
Lovas, E. E. . . . . Berwind
McCarty, J. L. . . . . Berwind
Murry, J. H. . . . . Eckman
Peters, I. T. . . . . Princeton
Read, B. J. . . . . Welch
Rivers, D. G. . . . . Gilliam
Saunders, Irvine . . . . . Welch
Schiefelbein, H. T. . . . . Welch
**Shanes, Herbert N. . . . . New York City
Shanklin, R. V. . . . . Gary
‡Smith, M. W. . . . . Warren, (Ohio)
Spahr, Aaron B. . . . . War
Spangler, P. C. . . . . Morganton, (N. C.)
‡Stevens, W. R. . . . . Kimball
Straub, G. L. . . . . Welch
Torregrossa, M. F. . . . . Ashland
Vaughan, Florien . . . . . Hemphill
Vermillion, E. E. . . . . Welch
‡Vermillion, J. S. . . . . Welch
Vick, C. W. . . . . Jenkinjones
‡Villani, A. J. . . . . Welch
Walker, W. J. . . . . Iaeger
**Warren, J. O. . . . . Welch
Wetherby, V. L. . . . . Welch
‡Wilson, Arnold . . . . . Welch
Young, W. B. . . . . Northfork

OHIO

Abersold, G. W. . . . . Wheeling
**Ackerman, W. E. . . . . Wheeling
Armbrecht, R. J. . . . . Wheeling
Azar, H. N. . . . . Wheeling
Bailey, R. B. . . . . Wheeling
**Bandi, R. T. . . . . Wheeling
Belgrade, J. T. . . . . Wheeling
**Bickel, C. S. . . . . Wheeling
Bippus, E. S. . . . . Wheeling
‡Bird, J. D., Jr. . . . . Elm Grove
**Bobes, S. S. . . . . Wheeling
Bond, R. C. . . . . Wheeling
‡Buffington, C. B. . . . . Wheeling
Caldwell, J. R. . . . . Wheeling
Clovis, C. H. . . . . Wheeling
Clovis, E. E. . . . . Wheeling
Copeland, H. B. . . . . Wheeling
Cracraft, W. A. . . . . Wheeling
**Dobbs, F. H. . . . . Wheeling
**Dobbs, L. F. . . . . Wheeling
‡Drinkard, R. U. . . . . Wheeling
Farri, L. B. . . . . Wheeling
Fawcett, Ivan . . . . . Wheeling
Gaydosh, M. . . . . Wheeling
‡Gaynor, John S. . . . . Wheeling
Gill, R. D. . . . . Wheeling
Gilmore, J. W. . . . . Wheeling
Glass, E. F. . . . . Wheeling
**Graham, Paul V. . . . . Wheeling
Greeneltch, D. E. . . . . Wheeling
Haislip, N. L. . . . . Wheeling
Harpfer, H. C. . . . . Wheeling
Hazlett, James C. . . . . Wheeling
Hershey, C. D. . . . . Wheeling
Higgins, A. W. . . . . Wheeling
Holley, C. J. . . . . Wheeling
*Howells, J. O. . . . . Bridgeport, (O.)
Jones, A. L. . . . . Wheeling
Jones, E. L. . . . . Wheeling
Joseph, N. K. . . . . Wheeling
Joseph, Wilda S. . . . . Wheeling
Kalbfleisch W. K. . . . . Wheeling
Keesor, C. H. . . . . Wheeling
Klug, T. M. . . . . Wheeling

Lewellyn, R. H. . . . . Elm Grove
**Little, H. G. . . . . Wheeling
‡Lukens, R. W. . . . . Wheeling
Lyon, L. A. . . . . Wheeling
MacGregor, D. A. . . . . Wheeling
Maskrey, Frank R. . . . . Wheeling
McClure, W. T. . . . . Wheeling
McCoy, A. V. . . . . Elm Grove
McCoy, C. G. . . . . Elm Grove
McCurdy, J. A. . . . . Wheeling
McCuskey, W. C. D. . . . . Wheeling
McLain, W. H. . . . . Wheeling
Megahan, Burke . . . . . Elm Grove
Meier, J. S. . . . . Wheeling
‡Murphy, J. H. . . . . Wheeling
‡Niehaus, A. J. . . . . Wheeling
Nolte, A. E. . . . . Wheeling
**Osterman, A. L. . . . . Wheeling
Pell, E. N. . . . . Wheeling
**Perilman, Wm. . . . . Wheeling
‡Peterson, Heyes . . . . . Wheeling
Phillips, Edward M. . . . . Wheeling
Phillips, Earl S. . . . . Wheeling
**Phillips, Edward S. . . . . Wheeling
Phillips, H. T. . . . . Wheeling
Phillips, R. W. W. . . . . Wheeling
Phillips, Wilson S. . . . . Milwaukee, (Wis.)
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THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII FEBRUARY, 1946 No. 2

AMMONIUM CHLORIDE IN THE PREVENTION OF STILBESTROL NAUSEA

By A. P. HUDGINS, M. D.,
Charleston West Virginia

Stilbestrol is a comparatively new drug which is findings its way into a wider field of usefulness as a therapeutic agent. There are few, if any toxic results of a serious nature which have been found to follow the use of stilbestrol, even in large doses. There are, however, annoying symptoms which may follow its administration. Chief among these is nausea which may lead to vomiting and may even require that the drug be discontinued.

USES

Stilbestrol is widely used in the female for the relief of menopausal symptoms, for senile vaginitis, gonorrheal vaginitis and suppression of lactation. It is used in the male in the treatment of carcinoma of the prostate. However, an increasing number of reports are appearing in the literature suggesting an even greater usefulness.

A listing of the combined uses of stilbestrol including some not well established or still in the experimental stages, would include:

A. Stilbestrol therapy in obstetrics
   1. Test for pregnancy
   2. Treatment of nausea for pragnancy
   3. Treatment of threatened or repeated abortion or miscarriage
   4. Treatment of the retroverted, pregnant uterus (to prevent abortion)
   5. Test for ectopic pregnancy
   6. When surgery is necessary during pregnancy (to prevent abortion)
   7. Postpartum bleeding, after term pregnancy or abortion
   8. To suppress lactation
   9. Treatment of toxemia in pregnancy
   10. Treatment of the extra-uterine, retained placenta

B. Stilbestrol therapy in gynecology
   1. Gonorrheal vaginitis
   2. Amenorrhea
   3. Functional uterine bleeding
   4. Underweight in young women
   5. Menopause
   6. Senile vaginitis
   7. Ovarian cysts (small, multiple)

C. Stilbestrol therapy in the male
   1. Prostate
      a. Carcinoma
      b. Hypertrophy
   2. Hypersexuality

DOSAGE

It is not the purpose of this paper to go into detail concerning the complete dosage or schedule of treatment of the above listed conditions. With stilbestrol, as with other therapeutic agents, it has been repeatedly stated that the smallest dose to accomplish the therapeutic results is the optimum dose. When used for the relief of menopausal symptoms and senile vaginitis, 1/10 to 1 mg. daily is usually found to be adequate. In the treatment of gonorrheal vaginitis, which is usually found in children, the dose is 1 to 3 mg. daily. In the treatment to suppress lactation, 5 mg. one to three times daily for a total of two to four days will usually prove beneficial. In the treatment of the obstetrical conditions, uterine bleeding and amenorrhea, larger doses are advised, ranging from 5 mg. to 100 mg. or more daily.

SIDE EFFECTS OF STILBESTROL

Most common among the side effects of stilbestrol is the occurrence of nausea which may lead to vomiting. In some cases, this gastro-intestinal symptom diminishes or completely ceases after a few days without a change in dosage. In some cases it disappears following the reduction of the dose; in a

number of instances it continues and it is necessary to discontinue the drug.

Instances of the occurrences of these complications or side effects vary a great deal in the cases reported in the literature. Shorr, Robinson and Papanicolaou have reported toxic reactions in as high as 80 per cent of the 44 cases treated. They observed, in addition to the nausea and vomiting, abdominal distress, anorexia, diarrhea, lassitude, paresthesias, vertigo, thirst, cutaneous rashes and even an acute psychotic episode. Others have noted abdominal pain, headache, anxiety, insomnia, and scotomata. Shorr and his co-workers in addition to employing symptomatic relief, as an index of efficacy, also aimed at the production of a full estrogenic replacement in these patients. This may account for the unusually high incidence of toxic manifestations.

This conclusion is somewhat borne out by the fact that Davis noted no untoward effect other than nausea and vomiting in his series of 100 cases, the criterion for therapy being the minimum dosage required to correct the (menopausal) symptoms.

MacBryde and his co-workers reported only 5 cases of slight nausea and 4 cases of nausea and vomiting in a series of 56 cases treated. Freed found nausea in 80 per cent of one series of cases treated, and 15 to 20 per cent in a series using small doses of 1 mg.

In the series of cases to be reported by the author, the higher range of dosage was used. Also, these cases did not include any of the uses listed under stilbestrol in obstetrics.

It has been noted that when stilbestrol is given to obstertical patients, either during pregnancy or in the immediate postpartum state, nausea and vomiting are very rare even with large doses; so much so, that Karnaky has advised the use of stilbestrol in large doses (5 to 10 mg.) as a test for pregnancy. If nausea does not occur within the next six to ten hours, the woman may be assumed to be pregnant in about 90 per cent of cases, according to his report.

Children also tolerate stilbestrol well, showing little nausea. Russ and Collins in treating gonococcal vaginitis in children gave relatively large doses (3 mg. daily) of stilbestrol but encountered no side effects so long as the drug was given in milk.

Most of the patients in the series of cases reported by the author were young, mature females complaining of functional bleeding or irregular or disturbed menstruation and the dosage ranged from 5 mg. to 40 mg. of stilbestrol daily, starting with at least 5 mg. a day and quickly increasing (5 mg. daily) the dose. A few of these patients requested that the dose be continued after their menstrual complaints had been corrected, so that they might continue to gain weight. Also after the dose was established they usually reported increase in energy, appetite and a sense of well being. The unfavorable symptoms, other than gastric (nausea, vomiting, "indigestion"), were an occasional headache and feeling of anxiety.

In treating the cases noted under the heading 'Gynecology' usually large doses are required and nausea occurs frequently, even being expected. It is from this group using the large doses where neausea would be expected (and, if present, is a disturbing or deterring factor to the continued and effective use), that this series is taken and the following suggestions offered to minimize or prevent this annoying symptom complex.

It is hoped that by correcting a disturbing, annoying, perhaps toxic by-effect, diethylstilbestrol may be made more available to a larger number of cases and in dosage sufficient to be effective. Unquestionably, many physicians have been discouraged or frightened by the complaint of nausea and vomiting and have discontinued the drug before favorable results could be obtained. Or the dose given has been so small (to avoid nausea and vomiting) that it has not been within the therapeutic range for the condition treated.

TREATMENT OR PREVENTION OF NAUSEA DUE TO STILBESTROL

When nausea is encountered the following suggestions have previously been made:

1. Decreasing the dose
2. Gradually increasing from very small doses, starting with desensitizing doeses for the patient
3. Special preparations of stilbestrol
   a. Enteric coated tablets
   b. Special chemical variations of the formula
4. Administration of the drug after meals or at bedtime (the patient sleeps through the peak of gastric disturbance six to eight hours after administration)
5. Administration in demulcent medium (such as milk, preferably sour, or buttermilk)
6. The use of atropine-like drugs or the concomitant administration of sodium bicarbonate
7. Cocaine and phenol preparation:
   a. Orally: Rx

Cocaine	gr. 1
Phenol	drops 2
Distilled water	oz. 3

Sig: 1 teasponful in ½ glass water

8. Sedative: Barbitals, orally or rectally, repeatedly for adequate sedation
9. Vitamin C: 400 mg. 3 or 4 times a day
10. Psychotherapy: Explain advised outline and purpose, stating clearly that nausea may be expected (as with pregnancy), that it is usually transitory, may decrease daily, is not serious
11. Proctoclysis: Karo 3 tablesponfuls (soda 1 tablespoonful may be added) in about 4 oz. (small cupful) warm water injected into rectum every 4 to 6 hours to be retained (this is a familiar treatment for nausea of pregnancy and is useful here also
12. Vitamin B_6, 25 to 50 mg. orally or intravenously

Certain of these methods (1) and (2) have not been applicable in treating the cases such as those in this series. For example, one of the chief effects desired in treating functional uterine bleeding is to increase rapidly the estrogen content of the blood, giving large doses (25 or 50 mg.) of stilbestrol daily. If the correction or prevention of nausea in these cases depended on ½ or 1 mg. dosage for 1 week, or promptly reducing the dose, the whole therapeutic procedure, obviously, would be nullified. Also, some investigators have found certain special preparations to be less effective in their therapeutic value and estrogenic potency. When large doses are required for the effect wanted, this decreased potency may be a very important factor.

The author has found the following outline, utilizing ammonium chloride, to be most helpful and effective in enabling the patient to carry through stilbestrol therapy with large doses. Typewritten instructions assure better cooperation and avoid misunderstandings.

INSTRUCTIONS FOR PATIENTS

You will have two kinds of tablets, No. 1 (diethylstilbestrol), (name not to be given patient), a small (white or red) tablet which sould be taken as directed with a little food or milk. Increasing the dose: (Cross out methods not used.)

I. Two every thirty minutes until bleeding stops, then two every four hours for two days, then two at bedtime.

(or)

II. One at bedtime for three weeks—stop one week and repeat.

(or)

III. One at bedtime—increasing one each night until six are taken and continue six at bedtime.

This tablet (No. 1) is the important tablet, it is strong medicine but not harmful when taken as directed. Nausea (sickness at stomach, bad taste, tendency to vomit) may occur, and even vomiting. Do not be alarmed, continue the medicine as directed or call for instructions.

Tablet No. 2 (ammonium chloride) (larger brown or white) to be taken two after meals, at bedtime, and for nausea.

1. If nauseated:
   a. "Keep something on your stomach—if nauseated, eat."
   b. Eat frequently; regular meals and between meals; take additional brown tablets between meals if necessary.
   c. Dry, salty food is better than liquids or sweet foods but you may have anything you want.
   d. Put three pieces of dry toast by bed to be taken during night if you awake—be sure to eat 1 or 2 pieces before arising in the morning.
2. If the above does not correct the discomfort:
   a. A sedative may be prescribed. (Phenobarbital, gr. 1 at 9-3-9.)
   b. Proctoclysis: 1½ oz. Karo, ½ oz. soda bicarb. in a solution of 3 ounces of water which is injected into the rectum every 4 to 6 hours to be retained. Sedation (chloral, barbitals, or bromides may be added).

* * * * * *

Ammonium chloride has been an old stand-by in therapeutics for many years. Its uses are many. It has been found helpful, among other things, in correcting the gastric and other symptoms in connection with alcoholic debauches. Older books advise it for the treatment of nausea and vomiting of pregnancy; also in the treatment of menstrual disturbances. More recently, this drug has been advised by Greenhill and Freed in the treatment of premenstrual distress. This premenstrual distress may include a large number of individual symptoms: headache, nervousness, tension, nausea and vomiting.

Realizing that there may be some relationship between the symptoms resulting from the estrogenic variation as they may affect the nausea and vomiting of pregnancy, the menstrual disturbances or the premenstrual distress, and the disturbance which follows the administration of large doses of stilbestrol, ammonium chloride was given to the patients in this series of cases along with stilbestrol.

A series of 70 cases was given a 20 to 50 mg.

daily dose of stilbestrol, administered with ammonium chloride. Marked vomiting would usually be expected. The results are tabulated, the criteria being *slight* nausea (noticeable but not annoying), *moderate* nausea (if vomiting occurred even once), (this second group includes cases in which vomiting occurred perhaps several times but was not disturbing to the daily routine), and *excessive* nausea (if the patient would not voluntarily stay on medication due to gastric distress). It is to be noted that in this outline *no nausea* or *slight nausea* is the criterion (vomiting immediately classifies it as *moderate*).

Nausea	*Reported*	*Per Cent*
None	15	21.4
Slight	41	58.5
Moderate	11	15.7
Excessive	3	4.2
Total	70	

Practically 80 per cent had only slight or no disturbing symptoms from large doses of stilbestrol; no vomiting.

In addition to these, there were 3 cases of nausea when small doses of stilbestrol (1 mg.) were used for menopausal complaints and all three reported marked improvement from the use of ammonium chloride.

Also, in the interest of studying the general effect of ammonium chloride, it was given to a number of pregnant patients complaining of nausea and vomiting. Favorable results were reported by these patients, not 100 per cent, but many were interested in continuing the drug since they were made more comfortable.

The author has found that a dose of 10 grains of ammonium chloride (usually enteric coated tablets, though some patients prefer plain) after meals and at bedtime definitely helps prevent and correct the gastric disturbances associated with large doses of stilbestrol. It may be advisable to start the administration of ammonium chloride, if possible, before the stilbestrol is given. The gastric effects (nausea and vomiting) from stilbestrol are known to occur about six to eight hours after the administration of the drug.

It will be noticed that the outline of treatment presented here is similar to a procedure which may be applied to the nausea and vomiting of pregnancy.

One may say that this is a rather formidable procedure to correct this symptom. The answer is, if stilbestrol is indicated and the drug of choice in the treatment of prolonged bleeding, it may be the alternative for a surgical procedure and may prevent the need for a transfusion. Hence, detailed care is justified and rewarded. If it is used in the treatment of amenorrhea, it is, at times, definitely more applicable and the therapy of choice. If stilbestrol is indicated, the correction or prevention of nausea and vomiting may enable this valuable drug to be used in instances which would otherwise prohibit its availability.

CONCLUSION

Nausea and vomiting may be a side effect preventing the use of stilbestrol in doses large enough to be effective.

Ammonium chloride, .65 gm., p. c. and h. s., or when nausea occurs, has been found helpful in the prevention and treatment of this distracting symptom.

Other helpful suggestions to prevent stilbestrol nausea and vomiting are as follows:

1. Administration of the drug at bedtime and with food
2. Frequent food intake
   a. When nausea is felt
   b. Before arising (toast by bed)
   c. Between regular meals
3. Mild sedative
4. Proctoclysis: (1½ oz Karo, ½ oz. sod. bicarb. in 3 oz. water). Sedation such as chloral, bromides or barbitals may be added.
5. Printed instructions for patients explaining what may be expected.

Stilbestrol, Lilly (mg. 5 tablets, plain), was used in this study.

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WHY A PUBLIC HEALTH CAREER

By A. L. CHAPMAN, M. D.,
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Charleston, West Virginia

It requires courage to tackle a public health career. There are certain advantages to it as well as certain disadvantages. For example, one of the disadvantages is that salaries paid to many public health officials are still out of line with the amount of experience and training required to enter the profession. In some areas public health nurses receive salaries scarcely above that paid to janitors, and sanitarians receive only a little more than day laborers.

Fortunately, by educational methods, the public is gradually being aroused to the importance of our work, and people are beginning to realize that money spent for the salaries of public health workers is a good investment. However, at times popular support for public health programs is lacking. This makes it extremely difficult, if not impossible, to achieve our objectives as rapidly as we think we should. Almost everyone is willing to give lip service to the idea that diseases should be prevented and life should be prolonged but when it comes to forming a lay committee to bring public health knowledge to the laity, volunteers are conspicuous by their absence.

County courts are always anxious to provide county residents with public health services, if the state or the federal government will foot the bill. It is an entirely different matter to convince the members of the county court that a health officer, nurse, or sanitarian should be employed by using county funds.

It is a peculiar thing, and one hard to explain, that people will go out of their way to contribute to a voluntary agency that happens to be exploiting an easily dramatized public health need, yet these same people will not ask their county court or their state representatives to provide enough funds to operate local and state health departments at even a minimal level. Only by an expanded health education program can this situation ever be remedied.

The third headache for the public health worker is politics, but each year this headache, fortunately, is becoming a little less bothersome. Public appreciation of merit, the merit system itself, and the employment of career personnel, all are factors which are driving the politicians away from the door of the health department. Even the politicians themselves are beginning to realize that bacteria do not hew to party lines. When a politician is sick he is just as sick whether he be a Democrat or a Republican.

Travel may also become a tremendous drawback to public health work. Most people realize that a state-wide public health program can not be administered from an office in Charleston. For the same reason a local public health program can be administered only by health officers, nurses, and sanitarians who get out in the field. The traveling done by health workers is not quite as pleasant as that done by the Astors and the Vanderbilts. There are no private yachts or pullman cars in mountainous or rural areas. Field workers have little time to sit in front of a fireplace evenings popping corn or entertaining friends. Too often they are on the road, in all kinds of weather, under conditions which only a veteran field worker can really appreciate or describe.

Then there are those night meetings. You all know what I mean. You struggle for weeks to get the local P. T. A. or fraternal organization to get together to absorb some knowledge about tuberculosis or syphilis, and you end up with more people on the platform than in front of it. Those night meetings that you do not get overtime for! Those night meetings when the motion picture projector refuses to work! Those night meetings when the speaker gets lost and you have to take his place! Night meetings make good reading in the monthly report but they are enough to wreck the disposition of the most seasoned public health veteran.

Another complaint which I have heard repeated frequently is that the freedom of action of public health workers is restricted. It is said that they are not permitted to think for themselves, that they can only carry out policies laid down by their superiors. To a certain extent this complaint is justified. But things would be in a mess all of the time if everyone working for the health department were permitted to interpret public health laws for himself. Not too long ago a health officer was reported for telling the mothers in his county that it was a crime to boil or pasteurize milk before feeding it to the baby because it destroyed its beneficial qualities.

Another health officer stated that he did not believe in vaccination because all vaccination did was to give people diseases which they would probably never get otherwise. Then there was a sanitarian who preferred spring water to treated water, no matter how contaminated the spring water was. He honestly believed that purification of water made it unnatural and therefore harmful. These are not far-fetched examples of what happens when health departments fail to assume the responsibility of enforcing the public health policies adopted by the

*Presented before the Southern District Health Conference at Beckley, October 11, 1945.

Public Health Council. However, there is a lot of red tape which starts to unwind in Washington, snarls up the wheels of progress in Charleston, and finally comes to an end in the local health department offices. Everyone is interested in cutting that kind of red tape and unnecessary supervision down to a minimum.

Finally, there is and always will be the personality of superiors to deal with. I have never seen a person employed in a health department, who at some time or another did not think his or her superior was just plain crazy. But that is a healthy sign and nothing to become alarmed about. A good many times I suppose the assumption of at least temporary insanity is pretty nearly correct. Luckily most of these complaints come under the heading of just plain griping. That is perfectly okay for there is no better mental cathartic than plain old fashioned griping. It becomes unhealthy only when, instead of complaining openly, employees seek to undermine or sabotage their superiors or the entire health department program.

It should never be forgotten that it is much easier to carry out a good order than it is to give one, and that all of us from top to bottom are prone to make mistakes and do make them. It is unfortunate, however, when superiors, no matter what their training or their rank, forget to give their subordinates a pat on the back from time to time, or when they deliberately seek credit which is not due them. I have never known anyone who would not work harder if he felt that his efforts were appreciated. In other words, we all prefer flowers while we can smell them rather than have them blanketed on our coffins after we are dead.

That is all the discouragement for the moment. I have left out a few of the bad features of public health work but not so many. So now let's get along with the bright side of the picture. Why did I enter the field of public health? Why did you enter it? Why should we encourage other young people to take up public health as a career?

The first of many advantages to a public health career is tenure in office. Today, when almost everyone is talking about security from the cradle to the grave (whatever that is), tenure in office becomes important. Under an efficiently operated and honest merit system such as we have in West Virginia, we already have tenure in office. The sense of security which it gives, and the freedom it gives us to do our work conscientiously and well, is well worth making sacrifices for.

Secondly, a regular pay check is a wonderful thing. There have been many times when most of us have envied the bloated pay check of war workers. (I know I have.) That is only natural. But who can forget during the dark depression days how pleasant it was to know that on pay day there would be a pay check in our envelope and not a pink slip. A regular pay check permits budgeting, money seems to go farther, and certainly a lot of worrying is eliminated. A regular pay check is a wonderful thing.

And what about regular hours? I know a lot of field workers will ask, "Yes, what about them?" They will ask it sarcastically. But on the whole, most of us are far more fortunate as regards regular hours than is the private physician, the hospital nurse, or the private engineer. Regular hours permit eating supper with the family, planning a picnic for Sunday, and having a vacation when it will do the most good. There are a good many professional people who would be contented with a much smaller annual income if they could be guaranteed just regular hours of work.

Another real inducement to enter the public health field is the ever-growing opportunity for postgraduate education. This year the State Health Department is training a nutritionist at Western Reserve University, three health officers at Johns Hopkins University, three health educators at North Carolina University, and a negro health educator at the University of Minnesota, in addition to providing shorter periods of training for every conceivable kind of health worker.

Throughout the year there are training opportunities for everyone employed by local health departments or the state health department. The training received not only increases the productivity of the worker, thereby making him more important to the department, it also increases his earning power for the rest of his life.

Now let's mention retirement benefits.

Although the retirement system contemplated for the health department will hardly implement such Utopian desires, it will provide a reasonable security for old age and make it possible to face the future without fear of financial dependency. A retirement system, developed on a sound actuarial basis, is not a dole by any means. In the long run it represents a very sound investment of public funds and a still wiser investment on the part of the worker. It should not be long before the health department receives the benefit of a good retirement system which will make it infinitely easier to employ and to hold well trained workers.

Now that I have both cussed and discussed public health, its advantages and its disadvantages, I would like to let you in on a little secret. I would like to

tell you why I signed up for public health work and why I hope to stick to it the rest of my life. I am pretty sure that my reason is your reason. I am in public health work because I am firmly convinced that the practice of public health and preventive medicine has permitted a longer, fuller, better, and happier life for many more millions of people than would otherwise have been possible. Call this idealistic if you will. I don't. I think it is just common sense. I have never met anyone, and really gotten to know them, who did not enjoy helping other people. The trouble is they are ashamed to admit it, and they go to every extreme to deny it.

It is a lot of fun to immunize children knowing that by so doing you are saving many of their lives, and preventing many of them from becoming seriously ill or crippled. It is a lot of fun to get farmers to clean up their privies, their milk barns, and their wells and then watch the incidence of enteric diseases go down. It is a lot of fun to organize good prenatal and postpartum clinics and then watch the family name appear in the column of birth notices instead of in the obituary column.

After I knew pretty much what I was going to say today, I thought it would be a good idea to ask our director of vital statistics to dig out some facts to substantiate my statements. He did that all right. He gave me some figures which astounded even me.

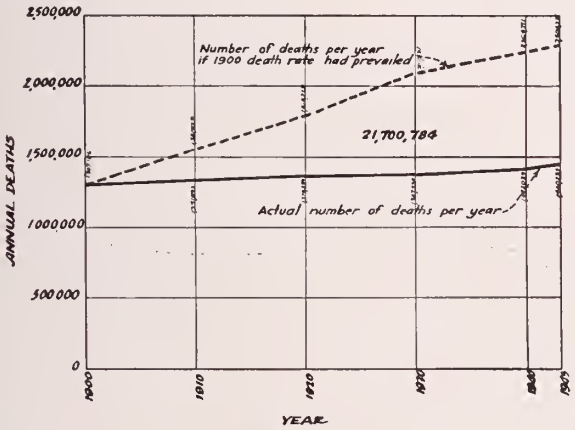

Chart No. 1
ESTIMATED NUMBER OF LIVES SAVED
1900-1943
By Health and Medical Science

This first chart shows what would have happened if the death rate for 1900 had been projected through the next forty-three years instead of decreasing annually (as it actually did).

By subtracting the actual number of annual deaths from the estimated number of deaths, using the 1900 death rate for each year, it is evident that 21 million more people would have died than actually did die from 1900 to 1943. You may well ask, "Can the entire credit for saving 21 million lives in forty-three years be given to health departments and allied public health agencies?" Let me show you two more charts and you can then decide for yourself what part public health agencies had in saving these 21 million lives.

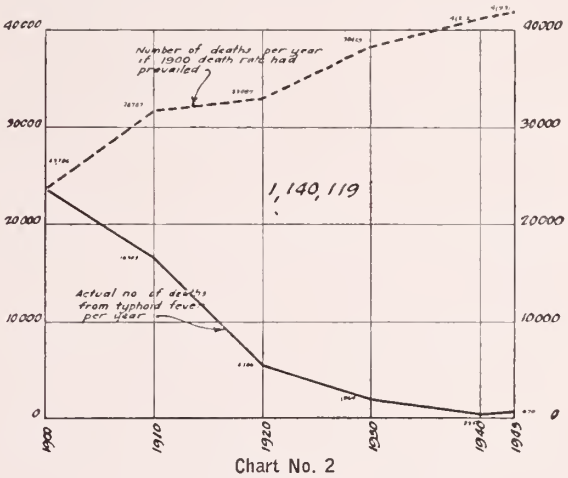

Chart No. 2
TYPHOID FEVER
Estimated Number of Lives Saved—199-1943
By Preventing This Disease

This chart shows that had the typhoid death rate of 1900 continued throughout the next forty-three years, 1,140,119 more people would have died from typhoid fever than actually did. I do not think anyone will deny that the decrease in the number of deaths from typhoid fever can be credited almost solely to better environmental sanitation, to immunization, and to better public health programs in general.

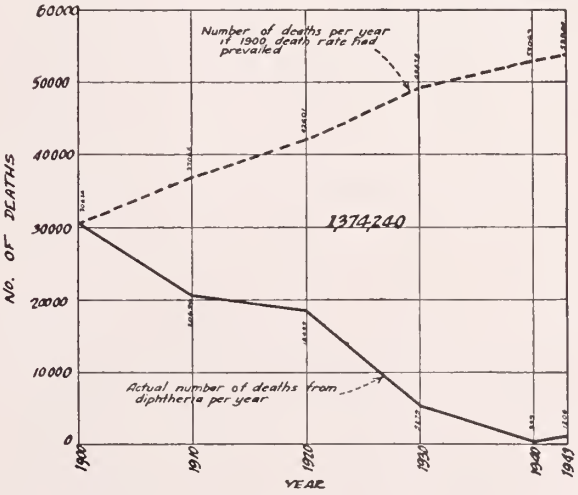

Chart No. 3
DIPHTHERIA
Estimated Number of Lives Saved—1900-1943
By Preventing This Disease

This third chart shows in a similar way that there would have been 1,374,240 more deaths from diphtheria from 1900 to 1943 if the diphtheria death rate of 1900 had been maintained until 1943.

What do these figures imply?

If public health measures saved 2,514,359 people from dying from typhoid fever and diphtheria alone in forty-three years, and this is more than ten per cent of the total number of lives saved from all causes, is it unreasonable to assume that preventive measures alone could account for most of the saving in life during the same period? If accurate statistics were available for all of the diseases which used to occur in epidemic form, we would find this same pattern repeated many times over. Smallpox, tuberculosis, syphilis, infant deaths, enteric diseases, malaria, and the communicable diseases of childhood all have decreased as public health programs have developed.

May I say then that I sincerely believe that any employee of a health department from the janitor in the basement to the health commissioner in the front office may well be proud of his profession. Through the untiring efforts of public health pioneers, people are beginning to grasp the significance of public health and preventive medicine. In the near future it may be optimistically predicted that appropriations will be increased to permit all of us to work in modern health centers with well trained staffs and good equipment.

INCREASE IN OCCUPATIONAL DERMATOSES

Diseases of the skin comprise 65 per cent of all occupational disease. There is, however, surprisingly little material indicating the actual amount of disability that occurs in these cases, the expense in terms of compensation paid or the medical costs involved. Compensation laws have been enacted in almost all the states, and it can be expected that such studies will be available later. These laws and the progress made since the original compensation act passed in Wisconsin in 1911 have been discussed by Foerster. He points out that within fourteen years there occurred in that state three times as many compensable cases in the last year of the period as in the first year.

Industrial accidents are, of course, far more numerous than occupational diseases and provide many more serious cases. The study of these surgical cases has led to the development of effective methods of prevention and treatment, whereas occupational diseases, with their large proportion of cutaneous cases, have been relatively neglected. True, great advances have been made in the control of lead poisoning, silicosis and a few other serious conditions. On the other hand, the toll that cutaneous disturbances take in the occupational field is large and deserves more study than it has thus far received.—C. Guy Lane, M. D., in New England Journal of Medicine.

CONTINUOUS CAUDAL ANALGESIA IN OBSTETRICS AS VIEWED BY MOTHER, BABY AND PHYSICIAN*

By W. ROYCE HODGES, JR., M. D.,
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In any discussion of continuous caudal analgesia in obstetrics it must be remembered that both the public and the profession have been somewhat preconditioned on the subject before having had any actual contact with it. Much of this preliminary influence may aptly be termed "air conditioning," inasmuch as some of it has come over the radio and much of it is hot air with too much emotion, and too little attention to scientific facts. It is not surprising that the subject should receive such widespread attention from the press nor should this publicity in itself be condemned. Any method which has promised women complete relief from all pains of childbirth is bound to receive widespread publicity. It is certainly the job of those of us with some considerable experience with the method to point out its real advantages as well as its technical difficulty and shortcomings for those who will be using it or who have it used for them.

In the first place, "What is continuous caudal analgesia?" It is a method of relieving the pains of childbirth by depositing a solution of procaine, metycaine or some similar local anesthetic into the peridural space by means of a needle or catheter introduced through the sacral hiatus. The term "caudal" applies only to the point of administration of the drug; it is not in this area that the chief effect of the drug used is obtained. Single injection anesthetic preparations have been used at irregular intervals since 1909; Cleland pointed out and proved in 1932 that the pathway of pain from the uterus to the central nervous system was over the eleventh and twelfth dorsal nerve roots. It is only by blocking these nerves that we do away with the painful sensation of uterine contraction, the sensation of low back pains, and that caused by distention of the lower uterine segment and the perineum, all of which are carried over the lower lumbar and sacral nerves. These, of course, are blocked at the same time by any peridural injection which, when administered through the caudal route, will also involve the eleventh and twelfth thoracic nerves. Briefly, it follows that with such a form of peridural anesthesia, the uterus continues to contract in a normal manner, the first and second stages proceed as without analgesia, except that the majority of these patients are

*Presented before the Marion County Medical Society, at Fairmont, West Virginia, January 30, 1945.

not able to employ their voluntary muscles in bearing down and helping to expel the child. This disadvantage is more than overcome by the extreme ease with which low forceps may be applied and the head readily delivered without trauma to mother or child. There is no argument from any group but that the third stage is greatly shortened and facilitated provided the uterus is let entirely alone.

As to the attitude of the expectant mother towards this method of pain relief, much depends upon her mental preconditioning. Given an average intelligent woman who is interested in receiving this method of pain relief, all that is needed to convince her is a quiet conversation with a physician who is experienced in administering the method. Ordinarily I do not bring up the subject unless the patient does so. As to those patients who insist they do not want "that needle," and there are quite a few of them, especially at first, I merely ask them to wait until their pains start before finally making up their mind. At this time the one who does not beg for pain relief is the rare exception.

After careful appraisal of the patient both from a psychic and anatomic standpoint, one is able to decide whether or not she is a good subject for continuous caudal analgesia. In a subject anatomically favorable for the method who insists strongly that she does not want "that needle" used on her spine, no efforts are made further to influence her judgment in the matter. She is simply told that we will use the best method adaptable to her at the time of her labor. It is interesting to observe that these are the very patients who, when their labor pains become hard and frequent, and actual delivery is rapidly approaching, beg for caudal analgesia, and in the end are the most satisfied with it. There is no story which these prospective patients have not heard with regard to the procedure, anything from total permanent paralysis to insanity being accepted by them as true, but they are still interested in pain relief! I remember one patient especially, a multipara who, though apparently believing many of the wild tales she had heard, came to the labor room with this attitude: "What if I am one in a hundred who dies because of an experiment, anything is worth while to avoid that terrible pain." If continuous caudal analgesia has accomplished no other good, it has proven to those of us who have used it rather extensively that the pains of labor are such that a woman has a right to demand relief, and if this method is not the one acceptable by her physician then he must provide some other procedure equally efficient and equally safe.

No matter how many women one has seen relieved by this method, one never ceases to be astounded at the complete transformation from an individual travailing with pain and fright to one who, within a relatively few minutes, is changed into a calm, happy, confident individual.

At the outset we said that both the laity and the profession were preconditioned in their notion about this method of pain relief. It should be obvious that the baby has no preconceived notion as to whether it is good or bad, and that perhaps its unbiased opinion should carry considerable weight. I can and will say without fear of contradiction that the babies are for it. They cry immediately at birth, so quickly, in fact, that care must be taken to remove all mucus from their respiratory passages to prevent any aspiration with their first deep breath. Our recent experience backs up our initial impression that all babies whose mothers have received metycaine are definitely stimulated by the drug, are redder than normal, cry much more spontaneously, and in general are much more active than babies born without any anesthetic. From the standpoint of these two interested parties then, it may be summed up briefly by saying that the mothers cry for it and the babies cry after it.

As I am getting this material together a thirty-seven year old primipara has just been admitted to the labor room. Her membranes ruptured this morning, and pains began about three hours ago. On admission her blood pressure was 176 systolic and 90 diastolic. She was exceedingly apprehensive, and although her pains came on only about every eight minutes, they were quite prolonged and apparently very severe in character. Following her preparatory enema the pains became much more intense and more frequent. An hour and a half previous to our seeing her, 3 grains of nembutal had been given in an effort to quiet her anxiety, although the same amount of rain water would have accomplished an equal amount of good. When we examined her the head was well engaged, cervix dilating rapidly, pains about every two minutes, with the patient moving all over the bed. In other words, she was in just the stage of labor in which we feel continuous caudal analgesia should be started to achieve the maximum result. After carefully preparing her back with the patient in the left lateral position the caudal needle was inserted, with the patient's insistence, "That hurts worse than any labor pain!" Within five minutes her feet which had been icy cold began to feel warm both subjectively and objectively, the patient volunteered that her pains were becoming much less severe, her feet were numb, her appre-

hension disappeared, and within fifteen minutes her blood pressure had dropped from 170 systolic to 150 systolic and 90 diastolic. At this time, three-quarters of an hour after the administration of caudal analgesia, she is lying perfectly quiet, the head is descending rapidly, and we expect to deliver her within two hours. (One-half hour after the caudal injection, the blood pressure was 120 systolic and 80 diastolic, where it remained.) She was easily delivered with low forceps and an episiotomy. The baby cried at once. The mother had no discomfort and no apprehension after the onset of the analgesia which lasted four hours.

Finally we come to the physician. Although he may feel no physical pain, in the long run he is the individaul who takes the rap. Anyone who has delivered a large number of women will have no argument with me on that point. I am more than glad to say that in continuous caudal analgesia as given to us by Doctors Hingson and Edwards, we have at our command a means of answering favorably the old, old plea of millions of mothers: "Doctor, for God's sake do something for my pain." Prior to the use of continuous caudal analgesia this plea was often overlooked, not through any desire to do so, but simply because we had no answer which offered any degree of safety to both mother and baby, until the patient had gone through many long hard hours of labor. True many of these patients have been so completely narcotized as to make it doubtful if the baby would ever breathe (and sometimes they didn't), and so completely befuddled as to make the physician wonder whether he was working in a mental or a maternity department!

Now, the question arises, "If this method is as good as it is alleged to be, why doesn't everyone immediately jump at it?" That's a fair question and we will try to give a fair answer. In the first place, those physicians who plan to use continuous caudal analgesia must expect to lose many many hours of sleep in learning the practical application of the procedure. In addition to this they can expect (and will get) much criticism, not only from the laity who do not know better, but from the physicians who should. Early in their application of caudal analgesia, there will be too many unsatisfactory results, patients will blast the method to their friends, and from there on the bridge table takes over. If I had not been completely convinced that the good points of the caudal far outweigh any of the shortcomings I would long since have given it up and reverted to those preparations which at least guarantee me a certain amount of sleep and relaxation, even if a similar guarantee cannot be given the patient.

There are three stumbling blocks to the beginner in the use of caudal analgesia.

First, technical difficulties in properly placing the caudal needle. This is by far the most frequent cause of failure with the method and can be overcome only by actual experience and practice. One is greatly aided by seeing the method used by more experienced hands and this is highly recommended.

Second, there is always a tendency to start the method too early in the course of the patient's labor. All workers in this field are in accord that seven hours in the majority of patients is the maximum optimum time. Four to five hours is even a better length of time, since one can be certain of complete relief during the time the patient is in greatest need of it, and also be assured that the individual will not become tired from lying in one position. Too often one is greatly disappointed following a perfect result which is finally marred by a painful terminal delivery.

Third and last: These patients must be constantly watched by individuals trained and experienced in the use of the method and the course of labor under this form of analgesia. In my own experience such an individual is, preferably, a good trained nurse experienced in the use of and sympathetic to this method of analgesia. It goes without saying that the physician who administers the anesthetic must be immediately available at all times since certain emergencies can and have arisen which only he can care for. But to say that a physician anesthetist must be constantly with every patient during the entire course of her analgesia is to completely disregard the mental make-up of any physician. It is somewhat like saying a physician would make a better constant attendant for a patient in a private room than a well trained nurse. I think if any one of us attempted to "special" the average patient for more than a half hour, he would find the experience very trying. The girls with whom I have had the good fortune to work when using this method, have not only come to be highly dependable, but have taught me many a point which I would have otherwise overlooked. It is due to them as much as any other one factor that this method has proven satisfactory in our hands. No discussion of this subject can be fairly ended without giving the entire credit to Doctors Hingson* and Edwards† of the United States Public Health Service in their efforts to keep this method before the profession.

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†Dr. Waldo B. Edwards, USPHS.

SEVERE ERYTHEMA MULTIFORME
(ERYTHEMA MULTIFORME PLURIORIFICIALIS)
CASE REPORT

By DAVID B. GRAY, M. D., and
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It is now twenty-nine years since Rendu [1] first described a disease characterized by severe bullous lesions of the mucous membranes of the eyes, nose, mouth, penis, and anus, and a "varicelliform" cutaneous eruption located mainly on the extremities.

Stevens and Johnson [2] reported two cases of eruptive fever with stomatitis and ophthalmia. They presented them as a new infectious disease of unknown etiology, a distinct and separate clinical entity. Wheeler [3] described a case of eruptive fever closely resembling erythema multiforme in which the purulent conjunctivitis resulted in blindness in one eye and partial loss of vision in the other. A case reported by Rutherford [4] had cutaneous lesions closely resembling those in the cases reported by Stevens and Johnson, and both eyes eventually had to be enucleated. Bailey [5] reported three cases. All suffered partial loss of vision. Ginandes [6] reviewed nine cases and reported a tenth. Seven of the cases became totally blinded. Ageloff [7] reported a case of erythema multiforme bullosum with involvement of the mucous membranes of the eyes and mouth. A case of an eruptive fever involving the mouth and eyes was reported by Murphy.[8]

Lever [9] presented a very comprehensive review of the disease, an excellent discussion of the various clinical manifestations, and a report of two cases. For any additional data on this disease, the reader is referred to this monograph.

The etiology is unknown.[2 8] Many drugs [10] have been suggested as the precipitating, if not the underlying cause. Among these agents are phenolphthalein, sulfonamides, inorganic arsenic, iodine antipyrine, and barbiturates.

The gross pathology is that of a severe exudative and inflammatory reaction involving primarily the mucous membranes of the body, that is, the conjunctiva of the eyes, and the mucous membranes of the nose, mouth, pharynx, trachea, penis, and rectum. The skin also is involved, particularly the perioral region, the palms of the hands, and the soles of the feet, followed by a well defined vesicular eruption of the upper and lower extremities varying in size from 1 mm. to 2 cm. in diameter.

The general reaction of the individual to the disease is characterized by sudden onset of high fever, headache, restlessness, moderate itching of the skin, anorexia, marked photophobia, and dysuria. In the typical case the individual has been apparently quite healthy. There is sudden onset of headache and fever. The mucous membranes of the mouth and tongue soon become vesiculated, and the perioral region is erythematous. Within twenty-four hours conjunctivitis and rhinitis are noted. There is also a marked, well-defined erythema of the palms of the hands and the soles of the feet. Thirty-six to seventy-two hours after onset large bullae appear on the hands and feet, and vesicles appear on the upper and lower extremities. By this time the mouth and tongue have become ulcerated, and balanitis has developed. The individual is unable to eat because of dysphagia, and soreness of the mouth. Mucus in the throat is tenacious, salivation is profuse, and photophobia is marked. The temperature is generally 102 F. to 105 F. in the evenings. There is a small amount of mucous discharge from the anus. The crisis of the disease is usually reached between the fifth and the tenth days. Convalescence is slow but progressive, and recovery is usually within three to four weeks after onset.

There is no specific treatment at present. Treatment is directed toward the maintenance of fluid balance, adequate caloric intake, sufficient vitamin therapy, and prevention of secondary infections. Particular care is given to the eyes.

The following case is presented as typical of this disease:

CASE REPORT

H. J. M., a five-year-old white boy, was admitted to the hospital on June 9, 1945. Two days

Fig. 1. This picture was taken on the eleventh day of the illness. However, the lesions of the face are still evidenced, the loss of skin of the palm of the left hand can be seen, and the balanitis is also quite distinct.

prior to admission this child had a sudden onset of headache and fever. Eighteen hours later swelling of the lips, and cheilosis were noted. Thirty hours after onset small maculopapular eruptions were seen about the mouth and cheeks, and soon thereafter blisters were noted on the tongue and mucous membranes of the mouth. Two days after onset of the illness the palms of the hands and plantar surfaces of the feet were scarlet red in color, and within the next twelve hours large blisters began to form. Marked conjunctivitis and balanitis were also observed, and large bullous eruptions of the arms, forearms, legs, and thighs began to form. Fever persisted, ranging between 102 F. and 105 F. The fluid intake was minimal. Temporary urinary retention, and distention occurred. There was a moderately severe proctitis, and perianal dermatitis. There were only a few small maculopapular eruptions on the chest and abdomen.

Physical examination revealed a critically ill child lying in bed in a very restless, uncooperative state. There was a large encrusted lesion of the face involving the perioral region and cheeks. The eyelids were swollen and red. The conjunctiva of both eyes was acutely inflamed, and there was profuse thick, yellowish discharge. The mucous membrane of the nose was swollen and encrusted, and breathing was obstructed. The mucous membrane of the mouth was likewise inflamed and ulcerated in appearance. The lips, gums, and tongue were ulcerated and bleeding. There was a slight rash on the neck, but no lymphadenopathy. The heart was normal in size, and regular in rate, force, and rhythm. There was a moderate tachycardia. The lungs were clear to percussion and ausculation. There was a slight enlargement of the liver, and the liver edge was tender to palpation. The spleen and kidneys were not palpable. No rigidity or masses were noted. There was an extensive, ulcerative eruption of the prepuce of the penis, and a moderate exudation. There was a very well-defined erythema of the palms of the hands and soles of the feet with beginning bullous lesions. There were also numerous maculopapular, and vescular lesions of the extremities.

There was no history of any previous serious illness. At eighteen months of age he had a "peculiar eruption" of the right side of the face. One year previous to admission he had a sore throat and hypertrophied, unobstructed tonsils. In the summer of 1944 he had the mumps.

The father, mother, and five siblings are living, and well. The child's great uncle, great aunt, and grandmother on the maternal side of the family had

Fig. 2. This is another view taken on the eleventh day of the illness. It shows, in addition to the other mentioned findings, the lesions of the extremities, particularly of the lower.

had tuberculosis. There has never been any cancer, diabetes, or allergic disease in the family.

On admission the urinalysis showed only a few pus cells, and a specific gravity of 1.030. The red blood count was 3,500,000, hemoglobin 72 per cent, color index 1.0. The white blood count was 5,100 with 54 segmented polymorphonuclear, 20 nonsegmented polymorphonuclear, 24 lymphocytes, and 2 basophiles. The blood serology (Hinton and Mazzini test) was negative. A blood culture was negative. A second urinalysis on the following day revealed a trace of albumin, and 10-15 red blood cells per high powered field.

Eighteen hours after onset of illness the child received ½ Gm. sulfathiazole, four hours and eight hours later ½ Gm., and then 0.25 Gm. every four hours for several doses. This was then discontinued. The administration of penicillin was begun forty-eight hours after onset of the illness: 20,000 units initially, and then 10,000 units every three hours, intramuscularly. A total of 500,000 units was given, and the drug then discontinued. Small doses of codeine were given subcutaneously for restlessness. Five per cent dextrose in normal saline solution was given intravenously in amounts of 1,000 to 2,000 cc. daily. Vitamin C, 500, 400, 300, 200 and 200 mg. was given with the intravenous fluid on successive days. Thiamin hydrochloride 200 mg. daily, and vitamin B complex, 4 cc. daily was given intravenously. Calcium gluconate, Gm. 1 daily, was also given in the intravenous infusions for three days.

The progress of the patient was steadily worse for the first seventy-two hours following admission. On the fifth hospital day the child was greatly improved, responded to questioning, and began to take fluids in small quantities by mouth. The bullous eruptions began to subside, leaving rather deeply pigmented spots, and a few umbilicated lesions. On the eighth day the skin was lost from the palms of the hands and the plantar surfaces of the feet. Meticulous care of the eyes using boric acid washes frequently, and yellow oxide of mercury was sufficient to prevent any corneal ulceration, and on the ninth day the conjunctivitis was greatly improved with only slight discharge. The balanitis was also improved. The tongue and mouth began to heal rapidly. Fluid intake by mouth was good. Progress was very rapid thereafter, and the child left the hospital on the twelfth day in good condition although some of the skin lesions were not completely healed.

A follow-up examination four months after onset of the illness showed the child to be in good health with no apparent sequelae except some depigmentation in the places where the vesicular lesions had been. There was no evidence of corneal damage, and vision was good.

Fig. 3. This is another view which shows the inflammation of the eyes more clearly. However, at this time the condition had improved considerably.

CONCLUSIONS

A case of severe eruptive fever in a young child is presented as being typical of that described by Rendu, Stevens-Johnson, and others.

The diagnosis is based on the following: Bullous lesions of the extremities, severe conjunctivities, stomatitis, and balanitis.

It is felt that supportive treatment directed toward the maintenance of fluid balance, adequate caloric intake, particularly by intravenous infusion, sufficient vitamin therapy, and prevention of secondary infections, with close attention being given to the care of the eyes aided materially in the rapid, uncomplicated recovery in this case.

Penicillin in doses of 20,000 units initially, and 10,000 units every three hours for a total dosage of 500,000 units failed to produce any beneficial change in the condition of the patient. However, the use of penicillin may have aided in the prevention of secondary infection in the open skin lesions.

The careful treatment of the eyes locally, together with penicillin intramuscularly, was sufficient to prevent any untoward complications in the eyes.

In this case there was no history of the use of any medicine, laxative, or herb by the patient at any time. Neither was there a history of allergy in either the patient or his family.

The prognosis is usually good in these cases.

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SOUTHEASTERN SURGICAL CONGRESS

The Southeastern Surgical Congress will hold an Assembly at the Peabody Hotel, in Memphis, Tennessee, March 11-13, 1946. All members of the medical profession are invited to attend. Full information concerning the program may be obtained by addressing Dr. T. B. Beasley, Secretary-Manager, Atlanta 3, Georgia.

The President's Page

The initiative in any program for medical care should always come from the physicians themselves, the reason being that ultimately the physician is the one who must deliver the service.

It is my belief that the doctors are doing a good job in their support of the voluntary hospital and medical service insurance plans. Voluntary insurance plans are meeting a definite need today. However, such plans are not the complete answer to the problem of medical care in West Virginia.

My concept of medicine is that it is the duty as well as the responsibility of the physicians, together with the general public, to provide adequate medical and hospital care for all the members of society whose economic status deprives them of such services today.

While much has been done to promote voluntary hospital and medical service plans for the segment of the population able to buy the contracts, the indigent and the medically indigent continue to suffer from medical neglect. This is the real medical problem demanding solution today, not tomorrow. This large group of our citizenry is demanding prompt action on the part of legislators.

Any program of medical care for the indigent and medically indigent must be able to stand up against the charge that it is "state medicine." I do not believe it is possible to organize and administer any system of medical care for the indigent except through the state, nor do I believe it possible for the doctors to be paid for services rendered the medically indigent except by the state. There is no need to talk about the free choice of physician where none exists, nor can exist, under the present program of caring for this large portion of the population.

It is significant that our theme song in Washington thus far has been to warn Congress and legislative groups that they dare not disturb our hallowed "doctor-patient" relationship. Is it not possible that we may be working this expression overtime? What of the program of caring for the veteran and his family? Would it not have been better for us to have long since presented a plan for the return of the veteran to his own community environment, to be cared for by his own doctor, in the hospital of his own choice? Will the veteran be happy and contented in the environment now being proposed and executed in veterans hospitals?

Are we doing the best we can when we argue so long and lustily for the negative and then fail to propose something constructive?

Let's all heed the admonition of the disciple Luke: "Physician, heal thyself." (Luke 4:23.)

Andrew E. Quick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journal, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

A MERITORIOUS SUGGESTION

Some of the churches have definite educational programs endeavoring to acquaint their members with both sides of social and economic questions facing the populace for solution. One of the outstanding of these is "Fellowship Forums," published in the *Adult Student*, a Sunday school magazine of the Methodist Church.

In the September issue of this periodical, an anonymous editorial writer discusses the Murray-Wagner-Dingell bill pro and con, and suggests that a satisfactory solution would be widespread voluntary sickness insurance with a governmental arrangement at the state, county or local level for aiding in the payment of premiums for those individuals who are in the low income and indigent groups. While some of the historical details of the article are not exactly correct, generally it is so fair and comprehensive a presentation of the question economically and politically, and the suggested solution is so challenging, that we feel both author and publication are due the thanks of the medical profession and of that segment of the citizenry which is not yet willing to turn over to Federal bureaucrats the direction and management of the detailed life of the individual American.

The final section of the article is especially well thought out and succinctly presented, and we quote it by permission of the editor of the *Adult Student*:

"The practice of medicine has become such a specialized profession that it is impossible for one person to possess anything like a full range of medical knowledge. As the various phases of medicine have become more sharply defined, doctors have of necessity learned to work more closely together. The clinic practice of medicine is steadily on the increase, because it has allowed doctors to practice better medicine on more people and at the same time given them greater opportunity to keep abreast of the advances in the profession. There is only one reason why the clinic method may fail: Its members may come to regard their patients as "cases," not human beings.

"The professional stimulus to one another of a closely knit group of doctors is the best guaranty there is of competent medical care. This type of care can become more and more widely available if citizens are also willing to assume some of the responsibility of securing it for themselves by taking out health insurance.

"If citizens are willing to prepay, through insurance. instead of postpaying their health bills, both they and the medical profession remain independent.

"At the local, county, or state level there should be provision for assisting individuals in low-income groups with the payment of health-insurance premiums.

"Many health problems require the assistance of the State. Certainly the health of its citizens is of prime importance. But much of our mental stamina withers in the presence of a too-paternalistic State.

"The health of every citizen is a serious concern of the nation. But the function of the nation in caring for the citizen's health should be on the side of enlightening and encouraging him to assume as much responsibility as he can physically and economically muster.

"There is a vast difference between a State that hires physicians to treat its citizens and one that simply aids citizens in paying premiums to a wide variety of insurance companies that write health insurance. The latter procedure could and should provide just as much medical care as the former. At the same time the State leaves its citizens free. The medical profession is allowed to continue its search for answers to the multitudinous professional problems that confront it. Advancement for the doctor is based on how well he pleases the patients and his confreres.

"The plan sketched above should provide adequate care without the intimate involvement of the government in the actual process of treating the patient."

HUNTINGTON IN MAY

A preview of the tentative program arranged by the Scientific Work Committee for the 79th annual meeting of the State Medical Association is sufficient to convince us that a modern attendance record will be set at Huntington next May. If all the speakers who have been invited accept assignments on the three-day program, doctors of West Virginia are assured scientific sessions second to none ever before presented at a medical meeting in this state.

The demand for space for technical exhibits is heavier than ever, and there is no doubt that all booths available will be sold long before the date of the meeting. Space in the large room set aside for scientific exhibits is being taken by hospitals, clinics, and individuals who are arranging interesting exhibits in keeping with the high class scientific program that will be presented.

While convention headquarters will be established at the Prichard Hotel, rooms may be reserved at the other hotels in Huntington. If reservations are made now, doctors should have no difficulty in obtaining accommodations for themselves and wives for the full three days of the convention.

The fact that no annual meeting was held in 1945 would normally mean a large attendance in 1946, but the added attraction of the annual meeting of the Woman's Auxiliary, resumed after cancellation of the meeting last year, should result in an attendance at the Huntington meeting in excess of the modern record set in that city in 1942.

CORRECTIVE AND THERAPEUTIC EXERCISE

Training in physical education has been and undoubtedly will continue to be important relative to the field of physical medicine in certain types of work or as preprofessional training, but there should be no misunderstanding relative to the fact that a person who is trained in physical education only is a layman and should not be considered as a trained technical assistant except in rather limited circumstances. The fact that a large part of the literature concerning corrective and therapeutic exercise has come from persons trained in physical education should stir physicians who are more adequately trained in physiology and pathology of disease to be more aware of corrective or therapeutic exercise. The physician should learn that exercise in an over-all plan of treatment cannot be applied adequately or correctly unless he understands the physiologic effects, dose, effect in specific conditions and what is to be accomplished in general better than the person administering it. —Archives of Physical Medicine.

General News

ONLY FIVE DISEASES CLASSED AS QUARANTINABLE BY PHC

Only five communicable diseases are quarantinable in West Virginia under revised regulations adopted by the Public Health Council at a meeting held at Charleston, January 7, 1946. Diphtheria, smallpox, epidemic typhus (louse-borne), plague, and cholera are still classed as quarantinable, but placarding is required only for smallpox, cholera and plague. Previously, measles, meningococcus-meningitis, poliomyelitis, scarlet fever and whooping cough have been quarantinable. For other communicable diseases, isolation of the patient only is required, and child contacts are to be excluded from school as indicated on the chart of the "Common Communicable Diseases," recently prepared for distribution by the state health department.

The new regulations were approved by the Council of the West Virginia State Medical Association at a meeting held in October, 1945, and the public health council has fixed July 1, 1946, as the official effective date.

The state health department has suggested that all local health departments adopt the new regulations immediately so that ground work may be laid before they actually become law. This is necessary because all regulations of the public health council must be advertised locally before they can be officially put into effect.

A new communicable disease code patterned closely after the American Public Health Association's manual on "The Control of Communicable Diseases" was also adopted by the public health council. This action was also recommended by the Council of the State Medical Association.

In households where diphtheria exists, if isolation is adequate, adult contacts are to be quarantined only when their occupation involves handling foods or close association with children, and then only until it is shown by bacteriologic examination that they are not carriers. Under the new regulations, it is suggested that in reporting malaria to the local health department, information should be furnished to show whether or not the disease was contracted within the continental limits of the United States, and, especially if it could have been contracted in West Virginia. When a communicable disease develops among the children attending school, the new regulations provide that the schools should remain open as usual, but that children exhibiting suspicious symptoms should be excluded from classes.

Until the new revised bulletin of the state health department on communicable diseases is printed and released, the manual of the American Public Health Association (1945) is to be used as a guide.

While pellagra is no longer reportable, the following have been added to the list of reportable diseases.

Epidemic diarrhea of the new born
Favus
Food infections (Salmonellosis)
Food poisoning (Staphylococcus and Botulinus)

Granuloma inguinale
Infectious kerato-conjunctivitis
Lymphogranuloma venereum
Rat-bite fever
Relapsing fever
Rheumatic fever
Puerperal infections
Typhus fever
Weil's disease
Glanders
Acute infectious hepatitis
Pneumonia (all types)

Except in localized epidemics, the following diseases are to be reported by number of cases seen instead of by name: Chickenpox (under fifteen years), mumps, german measles, influenza, and pneumonia (all types).

Reports of communicable disease cases are to be made to the local health departments as usual by phone, personal communication, or on special forms supplied for the purpose.

ANNUAL STATE HEALTH CONFERENCE

The annual State Health Conference will be held at the Prichard Hotel, at Huntington, May 2-4, 1946. The conference will begin on the morning of May 2, and continue until noon on May 4. The state health department has already arranged for exhibits at the conference, and local health workers will be asked to provide displays.

An institute for clerks of local health departments will be conducted in connection with the meeting. The institute will be held on the afternoon of May 3 and the morning of May 4, and will provide an opportunity for group discussion of current problems.

HOPEMONT LIMITS ADMISSIONS

A shortage in nursing personnel at Hopemont Sanitarium (tuberculosis) has resulted in a change of regulations that will provide for the admission of ambulatory patients only.

The sanitarium now has 420 patients, with only eight full-time and three part-time registered nurses on duty. The superintendent has stated that it has been impossible for him to find additional nurses at this time, and the state board of control reports that at least thirty more registered nurses are needed at the institution.

SCIENTIFIC EXHIBITS

The Committee on Scientific Exhibit requests that all members who desire to arrange exhibits at the annual meeting of the State Medical Association at Huntington, May 13-15, 1946, file application immediately for space. While several exhibits have already been arranged, there is still space that can be allotted. Applications should be addressed to Dr. Hu C. Myers, Philippi, chairman of the committee, or may be transmitted through Dr. C. B. Wright, of Huntington, or Dr. Clement C. Fenton, of Morgantown, members of the committee.

BILLS IN COMPENSATION CASES TO BE SUBMITTED BY DOCTORS IN DUPLICATE

A change in the regulations concerning the submission by doctors of bills for services rendered has been announced by Mr. E. B. Pennybacker, state compensation commissioner, effective immediately. All bills must now be submitted to the commissioner in duplicate, and medical reports must be filed before or at the same time bills are rendered.

This change in procedure will protect the doctor who submits his bills within the prescribed 90-day limit, notwithstanding any delay in having the bill approved within that time by the subscriber or employer.

The Workmen's Compensation Act was amended at the 1943 session of the legislature so as to require the submission of bills within ninety days after services are rendered. Frequently the bills, which have to be approved by the employer, have not been returned to the compensation commissioner before the expiration of the time limit, which has resulted in a great deal of confusion and delay in payment.

In the future, if no objection to the payment of the bill is received by the commissioner from the employer within fifteen days after it is submitted by the doctor, payment will be authorized to the same extent as if the bill had been regularly approved.

NEW TB REPORT FORM

A new confidential report form to be used for reporting tuberculosis has been adopted by the state health department and distributed to all local health departments. The new form replaces the old form, CD-8, which has been in use for several months. Local health departments are requested to report all new cases of tuberculosis on the new form and submit them weekly to the Collaborating Epidemiologist, State Health Department. The reports are to be treated as confidential and mailed under cover.

While the card is at present used only by local health departments, it is probable that the state health department will ask that the form be approved by the West Virginia State Medical Association so that it can be used by doctors over the state. The new form has already been approved by the public health council.

WILL LECTURE IN CENTRAL AMERICA

Dr. Paul H. Harmon, medical director of the Morris Memorial Hospital for Crippled Children, at Milton, has accepted an invitation to give two lectures on orthopaedic subjects before the Collegio Medico de El Salvador on March 20-21. He will leave Huntington on March 14, and while gone will visit other hospitals and medical institutions in Central America.

PHC REELECTS DOCTOR VEST

At a meeting of the Public Health Council, held at Charleston, January 7, Dr. Walter E. Vest, of Huntington, was reelected president for a fifth consecutive two-year term. He has been a member of the Council since 1933, and has served as its president since 1937.

GENERAL BRADLEY GIVEN FREE HAND IN VA MEDICAL AFFAIRS

A department of medicine and surgery was created in the Veterans Administration under the provisions of H. R. 4717, signed by President Truman early in January. General Omar Bradley immediately designated Major General Paul R, Hawley, MC, as acting chief medical director. Citing the great need for personnel, General Hawley has authorized the employment of 1,125 doctors, 1,200 nurses, and 100 dentists, to fill present vacancies.

The bill provides that the chief medical director is to receive a salary of $12,000 a year, the deputy director $11,500, and assistant medical directors (not to exceed eight) $11,000 each. Appointments of key executives will be for a four-year term. Reappointments will be for the same term. Doctors employed by the Veterans Administration will receive compensation as follows:

Chief grade, $8,750 minimum to $9,800 maximum
Senior grade, $7,175 minimum to $8,225 maximum
Intermediate grade, $6,230 minimum to $7,070 maximum
Full grade, $5,180 minimum to $6,020 maximum
Associate grade, $4,300 minimum to $5,180 maximum
Junior grade, $3,640 minimum to $4,300 maximum

Promotions will be made on recommendations of special Veterans Administration boards which compare with "selection boards" operating in the Army and Navy for high ranking officers.

Doctors, dentists, nurses and technicians now employed will be continued in their present jobs pending a determination of their qualifications for appointment in the new medical department.

Residencies will be set up in Veterans' Hospitals where younger doctors may study to qualify as specialists.

The new medical department is being set up outside Civil Service, but members selected by Veterans Administration officials will receive the benefits of the Civil Service Retirement Act of 1920.

The Washington office of the Council on Medical Service and Public Relations quotes General Hawley as follows:

> "With the signing of the medical department act, our objective is clear—a medical service for the veteran that is second to none in the world. Around the splendid nucleus of excellent men and women in the VA medical service, we shall build such an outstanding service."

PEDIATRIC ANTIQUES ON TOUR

It has been well said that more progress has been made in pediatrics during the past three or four decades than in all the time before that.

As applied to the feeding part of pediatrics, the Mead Johnson Collection of Pediatric Antiques bears eloquent witness to the great strides made. Without such evidence, it would be difficult, indeed, to imagine our own grandparents being fed from some of these odd-shaped utensils that defied thorough cleansing. To be sure, sterilization and pasteurization were not then in vogue. Not all babies received breast milk in abundance. In the days when wet nurses were common, some of these enterprising women literally did a wholesale business, managing to nurse three or four infants.

The baby's cereal of a century ago was simply stale bread lightly boiled in water, wine or beer. Butter or sugar might be added but the use of milk was regarded as fraught with danger. It was thought, according to Dr. T. G. H. Drake, "Milk might bring on the watery gripes, or the infant might imbibe with the milk the evil passions and frisky habits of the animal supplying the milk."

From a personal hobby enjoyed by the late E. Mead Johnson, Jr., the Collection of Pediatric Antiques, illustrated in the pages of a catalogue just issued, has evolved into one of considerably historical importance, depicting as it does the progression of infants' feeding vessels from the Greece of twenty-five centuries ago down to time within our own memory.

The Collection has been steadily growing in size and scope and is of increasing interest for teaching purposes via the historical route. The destruction of original sources caused by the war tends to add to the value of these objects.

Hence it is that, by request, the Collection now goes on an annual pilgrimmage to colleges, hospitals, museums, libraries and other institutions of learning. Arrangements may be made for "stopovers" upon application to the curator, Mead Johnson & Company, Evansville 21, Indiana, U. S. A.

MORRIS MEMORIAL FULLY APPROVED

The Morris Memorial Hospital for crippled children, at Milton, has been fully approved and given an AA-1 rating by the American College of Surgeons. The residency for graduate training in children's orthopaedics has been approved by the American Board of Orthopaedic Surgeons. This approval confirmed previous similar action by the Council on Medical Education of the American Medical Association.

Morris Memorial is in the preceptorship system for graduate training in orthopaedic surgery of the graduate school of the Univesity of Pennsylvania. Hereafter, most of the orthopaedic residents will come through this graduate school.

NAT'L CONFERENCE ON MEDICAL SERVICE

The 19th annual meeting of the National Conference on Medical Service will be held at the Palmer House, in Chicago, Sunday, February 10, 1946. The meeting is being resumed after a year's postponement. Following the address of the president, Dr. C. L. Palmer, of Pittsburgh, on "Medicine and the National Crisis," short addresses will be delivered by Walter Reuther, vice president of the United Auto Workers; J. S. Jones, chairman of the national committee for rural health; Dr. Leonard W. Larson, member of the American Medical Association committee on rural medical care; Major General Paul R. Hawley, surgeon general of the veterans administration; and Dr. Victor S. Johnson, secretary of the American Medical Association Council on Medical Education and Hospitals.

Dr. Andrew S. Brunk, president of the Conference of Presidents and other Officers of State Medical Associations, will discuss the aims and purposes of the conference, and Mr. J. W. Holloway, Jr., director of the American Medical Association bureau of legislation and legal medicine, will discuss medical legislation.

NARCOTIC DON'TS

The following "Narcotic Don'ts," prepared by the United States Bureau of Narcotics, has been distributed for publication and distribution throughout the country:

Don't leave prescription pads around—Addicts want them for effecting narcotic forgeries.

Don't write a narcotic prescription in lead pencil—Avoid writing any Rx in pencil, many are changed to call for morphine.

Don't write for narcotics this way: Morphine HT ½ # X or Morphine HT ¼ # 10—Several X's or zeros can be added to raise the amount. Use brackets or spelling.

Don't carry a large stock of narcotics in your bag—Addicts are on the lookout for these in doctors' offices and cars.

Don't store your office supply where patients can get at it—Avoid storage near sink or urinal. The patient may ask to use these.

Don't fall for a good story from a stranger claiming ailment that usually requires morphine—The addict can produce bloody sputum, simulate bad coughs or other symptoms. Make your own diagnosis.

Don't give a narcotic Rx to another without seeing the patient—Addicts have posed as nurses to get doctors to prescribe narcotics.

Don't write for large quantities of narcotics unless unavoidable—Diversion to addicts is a profitable business, as much as $1 for ¼ gr. M. S.

Don't prescribe narcotics on the story that another MD had been doing it—Consult that physician or the hospital records whenever possible.

Don't leave Rx's signed in blank at the office for nurses to fill in—Signed blanks are bad practice and many have been stolen by addicts.

Don't treat an ambulatory case of addiction. Addicts must be under proper control—Addicts go to several MD's at a time. Notify this bureau.

Don't dispense any narcotics without keeping a record of it—Bedside and office administration are permitted without record.

Don't buy your office narcotic needs on Rx blanks in name of a patient—The law requires you to use an official order form.

Don't resent a pharmacist's call for information about an Rx you have written—The pharmacist is held responsible for filling forgeries. Please cooperate.

Don't hesitate to call this bureau to get or give information. It will be held strictly confidential—Write, wire or phone, F. Elmer Niebuhr, Narcotic Agent, 311 P. O. Building, Clarksburg, West Virginia.

DR. McKINLEY RESIGNS

Dr. C. Scott McKinley, who has served as director of the bureau of industrial hygiene of the state health department since May 1943, has resigned to accept appointment as medical director and plant physician for the Bakelite Company at Boundbrook, New Jersey. He will assume his new duties February 1.

NEW HEALTH OFFICER

Dr. Clarence I. Butte, Jr., of Matoaka, recently returned from military service, has been appointed health officer for the city of Matoaka to succeed Dr. F. C. Goodall, who has moved to Princeton.

RELOCATIONS

Dr. William B. Rossman, of Indianapolis, has been released from military service and has relocated for the practice of his specialty of neurology and psychiatry at 603 Atlas Building, in Charleston. Doctor Rossman was engaged in psychiatric work with the Army in the European theater for over three years. He was formerly engaged in research in child psychiatry at the Riley Hospital in Indianapolis.

* * *

Dr. W. E. King, who was formerly connected with the Laird Memorial Hospital, at Montgomery, is now a member of the surgical staff of the Myers Clinic Hospital, at Philippi.

* * *

Dr. Curtis P. Artz, of Grantsville, left the first of January for Columbus, Ohio, where he has accepted a three-year residency in surgery at Ohio State University Hospital. Doctor Artz is a member of the Council of the State Medical Association, and is immediate past president of the Parkersburg Academy of Medicine.

* * *

Dr. Lee F. Dobbs, of Wheeling, who just recently returned from military service and who has completed a postgraduate course in obstetrics and gynecology, has moved to Huntington and will engage in practice at 1139 Fourth Avenue.

PSYCHIATRIC PERSONNEL PLACEMENT

The American Psychiatric Association and the National Committee for Mental Hygiene have jointly announced the appointment of Capt. Forrest M. Harrison (MC), USN, as director of a newly formed Psychiatric Personnel Placement Service, which is designed to help physicians and psychiatrists make contacts with training opportunities. Aid will also be given institutions in locating suitable candidates for fellowships.

Doctors interested in psychiatry are invited to send in full biographical statements including personnel data, education, training, and experience. Likewise deans of medical schools, superintendents of hospitals and directors of industrial organizations, clinics and others employing or participating in the training of psychiatric personnel are asked to submit full information concerning available positions and courses, including financial details. Inquiries should be addressed to Captain Harrison at 1790 Broadway, New York City.

9TH A. P. A. A. EXHIBITION IN 1947

The ninth exhibition of the American Physicians Art Association will be held in Atlantic City in 1947 in connection with the centennial session of the American Medical Association. At that time, the winners of the "Courage and Devotion Beyond the Call of Duty" art prize contest ($34,000 in savings bonds) will be announced.

The contest was originally scheduled for the 1946 American Medical Association session, but has been postponed for one year in order to give more physicians an additional year to complete their art pieces.

For further information regarding both the San Francisco 1946 and the Atlantic City 1947 art exhibits, physicians should write Dr. Francis H. Rodewill, secretary, American Physicians Art Association, Flood Building, San Francisco, or the sponsor, Mead Johnson & Company, Evansville, Indiana.

OPEN CONFERENCE ON U. S. P. STANDARDS

An open conference on proposed U. S. P. XIII standards will be held at the Hotel Pennsylvania, New York City, Friday morning, February 15. Any person who is interested in the proposed new or revised standards is invited to present comments looking to improvements in proposed standards as released in proofs and circulars. Suggestions should be submitted in writing to E. Fullerton Cook, chairman of the committee on revision.

N. G. A. AWARD

An annual cash prize award of $100.00 and a certificate of merit for the best unpublished contribution on gastroenterology or allied subjects has been announced by the National Gastroenterological Association. In addition, certificates will be awarded physicians whose contributions are deemed worthy. Contestants residing in the United States must be members of the American Medical Association. The winning contribution will be selected by a board of impartial judges, and the award will be made at the annual convention banquet at the Hotel Pennsylvania, in New York City, June 20, 1946.

All entries for the 1946 prizes should be limited to 5,000 words, should be typewritten, prepared in manuscript form, and submitted in quintuplicate, accompanied by an entry letter. The contest closes May 1, 1946. Entries should be addressed to the National Gastroenterological Association, 819 Broadway, New York City.

UROLOGY AWARD

The American Urological Association offers an annual award "not to exceed $500" for an essay (or essays) on the result of some specific clinical or laboratory research in Urology. The amount of the prize is based on the merits of the work presented, and if the Committee on Scientific Research deem none of the offerings worthy, no award will be made. Competitors shall be limited to residents in urology in recognized hospitals and to urologists who have been in such specific practice for not more than five years. All interested should write the Secretary, for full particulars.

The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, to be held at the Netherland Plaza, Cincinnati, Ohio, July 22-25, 1946.

Essays must be in the hands of the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee, on or before July 1, 1946.

BLOOD PLASMA

Any physician or hospital needing blood plasma, which will be donated by the American Red Cross to the State of West Virginia, should write, telephone or wire the State Health Commissioner at Charleston. Shipments will be made immediately. Requests for other biologicals should be filed with local county health departments as usual.

No charge will be made for plasma which will be available February 15, 1946, although physicians or hospitals may charge for services rendered. Plasma will be sent prepaid to the physician or hospital filing the request.

Doctors in the Service

Dr. Dan Glassman and Dr. Earle L. Shamblen, who recently returned from military service, have opened offices at 211 Charleston Trust Building in Charleston.

* * *

Capt. J. T. Peters, of South Charleston, is on terminal leave and is visiting friends in Cold Spring, Kentucky. He expects to return to civilian practice in South Charleston about February 1.

* * *

Lt. Col. D. C. Ashton, who has been assigned to the Army and Navy Hospital, at Hot Springs, Arkansas, has been released and has resumed civilian practice, with offices in the Raleigh Bank Building at Beckley.

* * *

Capt. G. C. Hedrick, Jr., of Beckley, who has recently been located at the Pueblo Army Air Base at Pueblo, Colorado, is on terminal leave from the army and has resumed his practice of Pediatrics with offices in the Raleigh Bank Building.

* * *

Lt. Col. Pat A. Tuckwiller, of Charleston, who has been serving as Chief of Medicine of the 130th Station Hospital in Heidelburg, Germany, is home on leave, and will report about the first of February for reassignment.

* * *

Major Lewis E. Baron, of Mannington, who has been assigned to the Mason General Hospital at Brentwood, L. I., is now with the 54th General Hospital somewhere in the Pacific.

* * *

Lt. Col. Clarence I. Butte, Jr., formerly of Elkhorn and McDowell, has been released from military service after twenty-four months' duty in the ETO. While on terminal leave, he was promoted from the rank of Major to Lt. Colonel. While serving in the ETO, he was executive officer of the 127th General Hospital, the University of Texas affiliated unit. Doctor Butte is now associated in the practice of medicine with Dr. B. S. Clements, at Matoaka.

* * *

Capt. W. W. Strange, MC, USNR, of Huntington, was released from service in the Navy in December and has resumed civilian practice in that city. His last assignment was as medical officer on the U. S. S. Solace.

* * *

Lt. Col. Athey R. Lutz, of Parkersburg, who has been in the service since 1942, and who went overseas as a member of the 3rd auxiliary surgical group, has been released from military service. Before he returned to this country, Colonel Lutz was chief of the orthopedic surgery of the 159th General Hospital. Upon his return to this country, he was assigned to the orthopedic section of Wakeman General Hospital at Camp Atterbury, Indiana.

Colonel Lutz will resume the practice of his specialty, orthopedic surgery, in Parkersburg in February.

THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII MARCH, 1946 No. 3

COLLOID (PARAPHISIAL) CYSTS OF THE THIRD VENTRICLE

REPORT OF CASE WITH REMOVAL AND RECOVERY

By ARCHER A. WILSON, M. D., F. A. C. S.*
Charleston, West Virginia

The symptoms produced by these very rare and interesting lesions of the third ventricle, variously known as Colloid (Weisenburg[1]: Dandy[2]) Paraphysial or Neuro-epithelial (Bailey[3]) Cysts, are best understood if one appreciates their embryonic development and anatomical relations.

These tumors arise from the velum transversum of the anterior part of the roof of the third ventricle from an embryonic anlage of the paraphysis, according to Sjövall[1], which is a rudimentary structure in the human after birth but is most fully developed in all lower vertebrates as the paraphysial gland.

The third ventricle is a median cleft situated deep in the brain between the two thalami. Posteriorly, it communicates with the fourth ventricle through the aqueduct of Sylvius, while anteriorly it communicates with the lateral ventricles, which are situated above and laterally to it, through the interventricular foramina of Monro. Somewhat triangular in shape, with its apex directed backward, it has a roof, floor, anterior and posterior boundaries and a pair of lateral walls. There cerebrospinal fluid secreted by the choroid plexus of the lateral and third ventricles thus finds access to the fourth ventricle, whence it escapes through the foramina of Magendie and Luschka into the subarachnoid space.

Owing to the narrow confines of this structure, any tumor arising within the space produces an internal hydrocephalus by obstructing the flow of fluid through the aqueduct if the tumor is located in the posterior part, or by blocking the foramina of Monro if the tumor be anterior. It is with this latter location that this presentation is concerned, since these tumors arise from the roof anteriorly in the immedite vicinity of these foramina. As they are situated not more than 2 mm. apart, these cysts block both foramina and thus give rise to marked dilatation of both lateral ventricles and a consequent internal hydrocephalus.

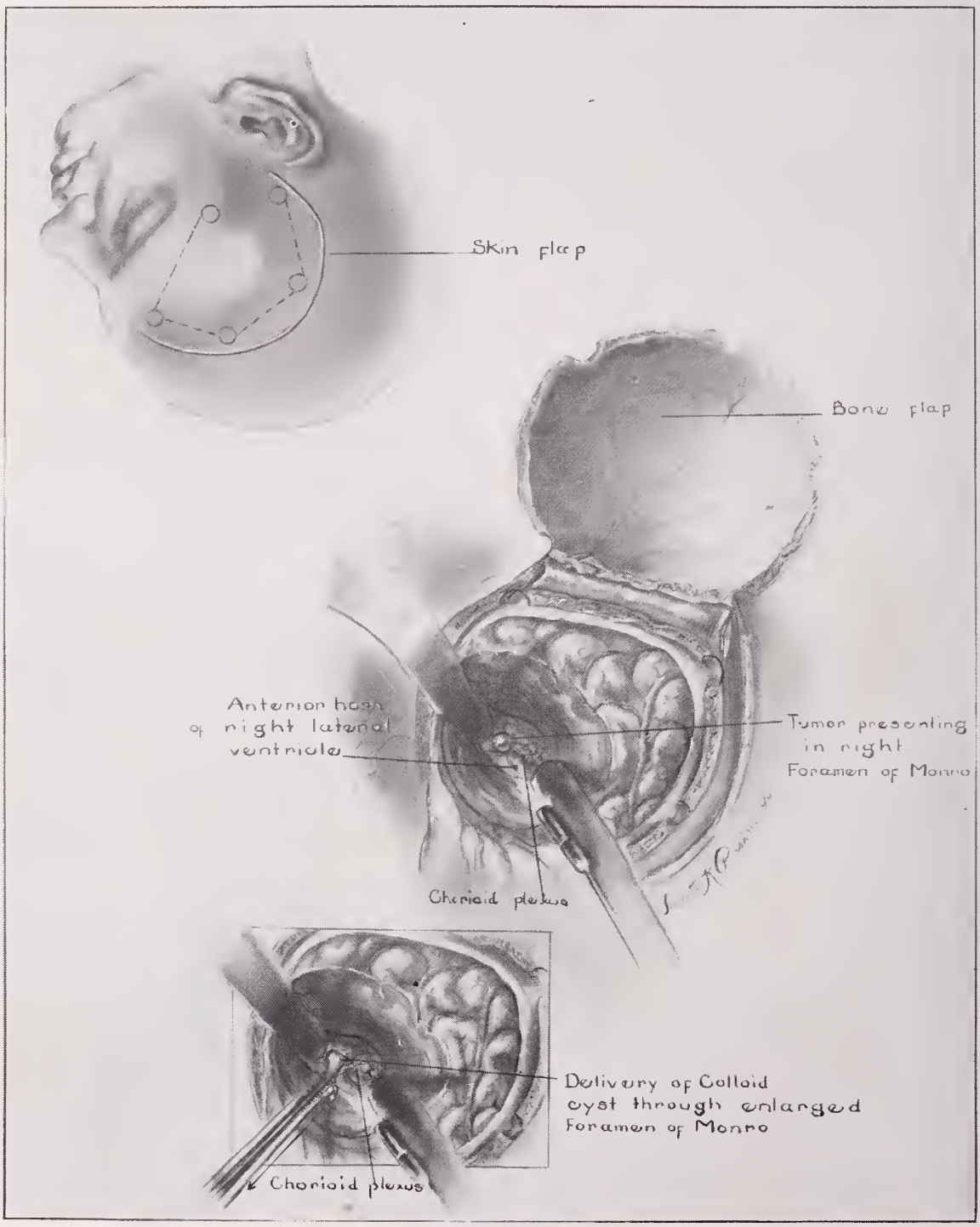
The symptoms produced, therefore, are precisely what one would ordinarily expect—evidence of acute increase in intracranial pressure due to internal hydrocephalus: headache, nausea, vomiting, dizziness, visual disturbance, and perhaps unconsciousness, convulsions, apathy, stupor, mental symptoms, vegetative disturbances and even sudden death, which has been often reported.

Since these tumors occupy such a strategic location with reference to both foramina of Monro and are more or less "suspended" above these openings, one might expect a "ball valve" type of obstruction which gives rise to intermittent attacks of sudden severe headache and vomiting upon certain postural changes and this feature has been repeatedly emphasized.

Until recent years, these tumors remained without the field of diagnosis or surgical removal. Ventriculography has rendered their diagnosis rather certain, and a surgical attack has been developed which enables one to deal with these unusual lesions in a highly satisfactory manner.

*From the Neurosurgical Service, Charleston General Hospital, Charleston, West Virginia.

Dandy, in his recent monograph, has most ably presented the case of these tumors. He reported 5 cases of his own and 31 from the literature; in none of these latter cases, however, was the lesion diagnosed at operation. All 5 of Dandy's cases were operated on with successful removal of the tumors and excellent results save in the case of one patient who died four weeks after operation. All of his patients were females, varying in age from 11 to 42 years. The duration of symptoms varied from 8 months to 10 years and all tumors were described as being about the size of a marble. All of these patients suffered from intermittent headaches associated with vomiting. None had any neurological findings of any significance save bilateral papilledema, which was, however, absent in one of his patients who had had symptoms for five years. All cases were correctly and accurately



diagnosed and the lesions localized by ventriclography. In three cases the tumor was removed through a pineal approach and in the other two through oval core in the frontal lobe.

Zimmermann and German,[5] McLean,[6] and, from Scotland, Paterson and Leslie,[7] each reported one case successfully operated upon. While the literature reveals a total of some 55 case reports[8-13] (mostly autopsy findings) only some 10 cases have been reported as successfully operated upon.

The following case was referred by Dr. V. E. Holcombe, Charleston, West Virginia, because of bilateral papilledema, headaches and enlarged blind spots.

CASE REPORT

Case No. A-19733, Mr. C. N. White, married, age 24, chemical worker, admitted to the Neurosurgical Service of the Charleston General Hospital, August 12, 1940. He stated that for the past three years he had been subject to bouts of generalized headache which often came on suddenly and he had noted that often in the past seven months when stooping over as if to pick up an object, he would suddenly become blind and dizzy for a few moments. During the past nine months, headaches had become much more frequent and severe, and appeared to respond favorably to treatments of his sinus. He stated that his glasses had been changed several times in recent years. There is a history of very little nausea, vomiting or other symptoms suggesting intracranial pathologic change.

No relevant facts were developed from his past, family or marital histories except that his maternal grandmother was left-handed, as was the patient, his two brothers, and one sister. Another sister and both parents were right-handed.

He had continued to work up to the day of admission to the hospital for diagnostic study.

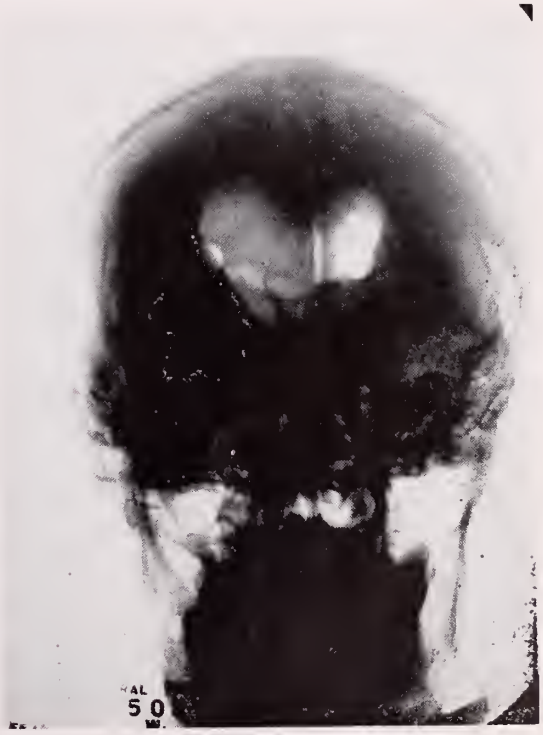
The physical examination revealed nothing of significance, as the patient was well nourished and developed, and apparently enjoying excellent physical health. The blood pressure was 154 systolic and 92 diastolic.

The neurological examination revealed only bilateral papilledema of moderate degree with enlargement of both blind spots and no visual field defect. V.O.D. 20/20, V.O.S. 20/20 corrected with lenses.

Blood and ventricular fluid were negative for syphilis.

Stereoscopic films of the skull showed no evidence of bone pathology.

Ventriculography: Burr openings were made over both posterior horns. The right ventricle was tapped and 98 cc. of fluid removed and replaced with air. The patient was taken to the x-ray room where a markedly dilated right ventricle was shown, with only a very small amount of air in the third ventricle.[1,2] With the left side



Figs. 1 and 2 show symmetrically enlarged ventricles, without shift, and only a very small amount of air in the third ventricle, which entered thru the right foramen of Monro, before the "ball valve" action of the tumor became complete during ventriculography.

down, the left ventricle was then tapped and 45 cc. of fluid obtained and replaced with air. In spite of repeated manipulation of the head, no further air could be visualized in the third ventricle. This study revealed distinctly dilated lateral ventricles without shift, indicating a midline tumor completely obstructing the left foramen of Monro and almost completely obstructing the right. The tumor appeared, therefore, to be in the anterior portion of the third ventricle.

A right frontal craniotomy was performed August 26, 1940, as per the accompanying artist's sketch.

As soon as the right foramen of Monro was exposed, a smooth, grayish, glistening mass was seen presenting through the foramen. This was grasped with tissue forceps and a small piece, the size of a tear drop, came off without bleeding. The margins of the foramen were incised and the foramen enlarged, and the complete tumor, the size of a cherry stone, was delivered with ease and without hemorrhage. No other tumor tissue was seen in the third ventricle. The wound was filled with warm saline solution, the dural flap closed with interrupted sutures of fine silk, the bone flap replaced and secured with Babcock's steel wire, and the galea and skin closed in tiers with silk. The operative procedure was well borne and at its close the blood pressure was 120 systolic and 70 diastolic, and the pulse rate 128. Five hundred c.c.'s of whole blood was given during the operation.

On the pathological tissue, Dr. Walter Putschar reported as follows:

"By Paraffin sections about the same findings are encountered as previously reported. The specimen consists almost entirely of coagulated, partly laminated, colloid-like material including only a few cells. Only in one small area bipolar and multipolar cells are visible resembling astrocytes. There is no cyst wall demonstrable.

"Considering the entire findings, these probably are the contents of a so-called colloid cyst. The few cellular structures first interpreted as astrocytoma probably belong to a stalklike attachment of this structure."

The patient's post-operative convalescence, while somewhat stormy, was highly satisfactory. He left the hospital four weeks folowing operation, and his improvement has continued at a most gratifying rate.

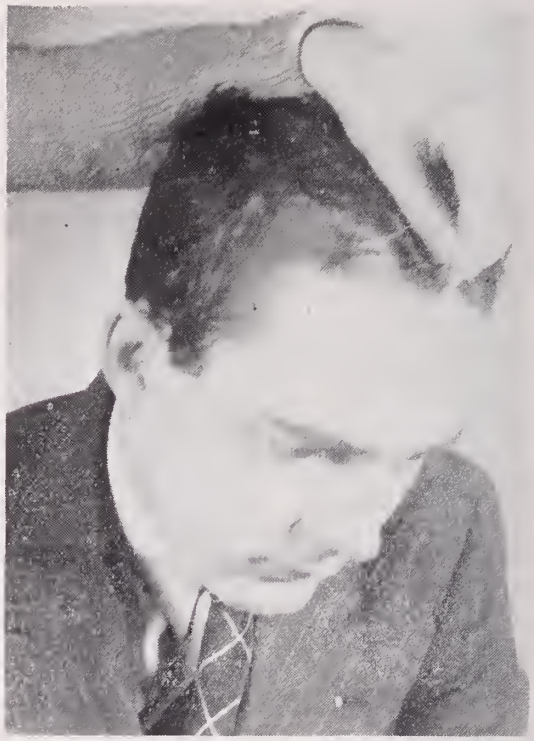


Fig 3 shows a photograph made four months after operation.

He has been entirely relieved of his headaches and presents no evidence of any speech, memory or personality changes such as might possibly have been expected on account of his left-handedness, save for some tendency to get lost upon occasion in supposedly familiar surroundings. However, he was able to return to his former work February 1, 1941, and paid his hospital and surgical expense out of his postoperative earnings! There was some secondary optic atrophy from his long continued intracranial pressure, but his ultimate vision was V.O.D. 20/30, V.O.S. 20/70. He was last heard from in June, 1943, nearly three years after operation, in connection with one of those letters of greeting from the President: he had been passed by his local board and ordered for induction.

SUMMARY

The case report of a rare and interesting tumor of the third ventricle which was removed with excellent results is presented. The pathological characteristics of these "colloid cysts" prevent their easy confusion with other cerebral neoplasms. These tumors are single, ovoid, and perfectly benign. They are suspended by a narrow pedicle in the anterior roof of the third ventricle, intermittently obstructing one or both foramina of Monro, causing internal hydrocephalus without associated local-

izing neurological signs as a rule. They are diagnosed and localized with accuracy by means of a ventricular air study, and their successful removal results in a permanent cure. Undiagnosed, they not infrequently result in sudden death.

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TRAUMA AND CANCER

It has been claimed that a severe injury to a person suffering from a malignant tumor, even when the trauma is far removed from the site of the tumor, may hasten the malignant growth, due to the lowering of the general bodily resistance. This assumption is incorrect, because any lowering of the body resistance will tend to retard the growth of the tumor cells.

Regarding the possibility of increasing or hastening metastasis by an injury to a pre-existing malignancy, it is believed that this will not occur for the following reason: any trauma to or about a malignant growth, sufficient to disrupt any of the tissues, will necessarily rupture blood or lymphatic vessels about this tumor. These vessels serve as the portals through which metastasis takes place, so by reducing the number of these portals matastasis will be retarded rather than increased.

While we hold that trauma neither causes nor aggravates malignant tumors, nevertheless, an injury to a pre-existing tumor may result in serious consequences. A large sloughing, superficial cancer may be lacerated or contused, causing a fatal hemorrhage; a blow over the abdomen may rupture a hollow viscus afflicted with malignancy and produce a fatal hemorrhage or peritonitis. While trauma does not actually aggravate the tumor growth in such cases, it does disrupt tumor tissue, and any subsequent complications must be ascribed to the trauma.—A. K. Harcourt, M. D., and Jewett V. Reed, M. D., in J. Ind. St. Med. Assn.

HYDRONEPHROSIS DUE TO ABERRANT VESSELS*

By CHARLES A. HOFFMAN, M. D.,
Huntington, West Virginia

Over one hundred years ago Roger pointed out the relationship of hydronephrosis to anomalous renal arteries. Dorland in his dictionary defines an aberrant vessal as one which does not follow its normal course. As a rule the urologist considers both branches of the renal pedicle which do not follow their normal course and accessory vessels as being aberrant vessels.

H. P. Winsbury-White states that in his opinion the extrinsic vessel which causes obstruction at the ureteropelvic junction is the inferior branch of the renal artery. This vessel if inserted into the lower pole of the kidney can, if other factors are presnt, cause obstruction. He discards the idea of an accessory vessel being the offender and offers proof by describing the autopsy findings in a series of cases. He contends that the operator during exploratory studies of the kidney at the operating table does not follow the course of the obstructing vessel for enough to recognize its origin. Statistics show that at autopsy approximately 20 per cent of bodies examined show aberrant vessels associated with the renal pedicle.

When one considers the relatively few cases in which aberrant vessels are recognized as being associated with renal pathology, it is apparent that other factors must be taken into consideration when one associates aberrant vessels with renal damage. There are many divergent opinions among urologists as to which factors are associated with aberrant vessels in causing hydronephrosis. It is obvious that abnormal vessels which enter the upper pole of the kidney would not cause obstruction at the ureteropelvic junction.

Jewett discusses three generally accepted opinions:

(1) That the vessel as a result of some change in its relationship to either the ureter or pelvis is in itself the most important cause. This is particularly evident when associated with nephroptosis.

Many urologists consider that nephropexy is indicated only in those cases in which a nephroptosis is associated with an obstructing aberrant vessel or band.

*Presented before the Raleigh County Medical Society, at Beckley, May 31, 1945.

COLLEGE OF PHYSICIANS

(2) A stricture at the ureteropelvic junction or somewhere along the ureter, and probably overlooked, initiates a dilatation and as this progresses, the pelvis, becoming increasingly heavy, sags over the vessel which originally did not cause obstruction.

(3) A disturbance of the neuromusecular mechanism of the renal pelvis which results in such diminished peristaltic activity that the contained urine cannot be expelled through the ureteropelvic junction. This again may mean that the extrinsic vessel is obstructing where originally it did not.

Other authors express different views. Elkhorn and Foley emphasize that those vessels passing anteriorly to enter the posterior aspect of the lower pole of the kidney and those vessels passing posteriorly to enter the anterior aspect of the lower pole are most likely to cause obstruction.

Foley brought out the importance of horizontal axial rotation of the kidney or a forward pitching of the upper pole in bringing contact between the vessels and the ureter. He claims that diagnosis can be made from the pyelogram by the presence of a shortened longitudinal axis, together with the closing of the angles between the calices.

Liek believes that the vessel which enters the lower pole of the kidney may not grow as rapidly as the renal pedicle.

Kelly and Burman show that in the infant the two poles of the kidney are arched upon themselves so as almost to enclose the pelvis. With growth the kidney straightens and the pelvis becomes extrarenal. This straightening process would tend to tighten polar vessels.

Reports of various authors on the cause of hydronephrosis due to obstructing vessels were studied.

Mayo, Braasch and McCarty first reported a series of 20 such cases in 1909. In 13 of these cases anomalous vessels had been divided with good results.

Hugh Young reported 70 cases, 30 of which were found to be due to accessory vessels at the ureteropelvic junction and 8 were due to accessory vessels which were associated with strictures of the ureter.

Since that time several series of cases have been reported by May, Henlein, Higgins and others. All agree that aberrant vessels predominate in males, approximately 75 per cent of the cases being found in males. In one series of 12 cases, 3 showed evidence of bilateral constricting vessels. It was noted also that the preponderance of cases occurred on the right side.

The following three cases are reported to show hydronephrosis due to aberrant vessels in which various degrees of severity of symptoms and extent of kidney damage are described.

The first case, a 45-year-old white female, Mrs. I. R., gave a history of several attacks of severe pain in her right flank, accompanied with fever, pyuria and toxemia. She stated that these symptoms usually subsided after a few days of bed rest and forced fluids. On admission her temperature was 103 F. and the laboratory reported a leukocyte count of 14,200 with an excess in polymorphonuclear leukocytes. A Gram stain of the urinary sediment revealed B. coli.

Cystoscopy showed a normal lower urinary tract. The left kidney specimen was normal as to specimen and function. The right kidney specimen showed a slightly diminished function and infected urine. A right retrograde pyelogram showed a moderate hydronephrosis and a filling defect at the ureteropelvic junction.

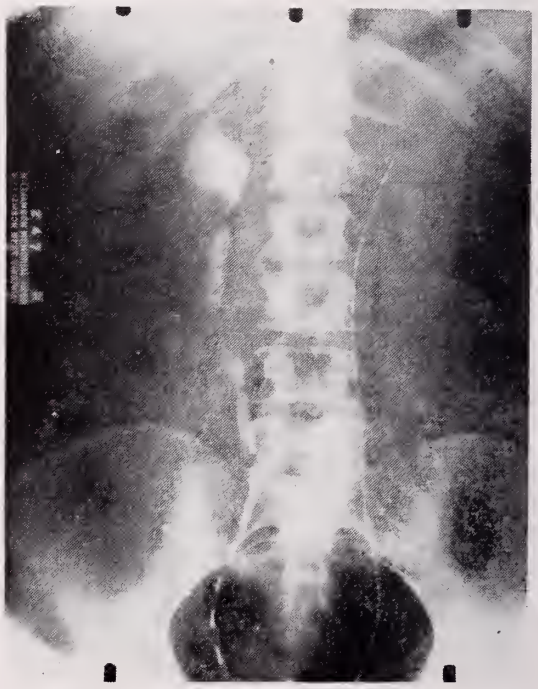

Fig. 1 (Case 1). Retrograde pylogram, showing slight hydronephrosis with filling defect at uretero-pelvic junction.

An exploratory operation on the right kidney was advised and agreed to.

At operation the kidney was found to be apparently normal grossly with moderate mobility. There was an accessory vessel which compressed the ureter before entering the lower pole. This was clamped, cut, and ligated. The kidney was

then suspended with one No. 1 chronic catgut suture to the psoas muscle. The postoperative course was uneventful, and the patient has not had a recurrence of attacks.

The second case was a 19 year old white male, admitted to the Chesapeake and Ohio Hospital August 18, 1944, with the complaint of pain in his left abdomen for the past week. He gave a history of several previous attacks. His temperature was not elevated and his blood studies were normal. Because of a microscopic hematuria he was referred to the urological service for study.

On cystoscopy the right kidney was found to be normal as to specimen and function. There was no drainage from the left catheter. Intravenous urograms done a few days later did not visualize any dye from the left kidney. A diagnosis of a destroyed left kidney was made. For the sake of conservatism another cystoscopy was done, grossly infected urine was obtained, and a faint appearance of P.S.P. was noted after a twenty-minute interval. A retrograde left pyelogram showed appreciable narrowing at the ureterpelvic junction with some dye geting by to reveal a large hydronephrosis. There was, however, a fairly good amount of kidney tissue. An exploration of the left kidney was advised and agreed to.

At the time of operation, September 4, 1944, a large kidney of fair consistency with a considerably dilated pelvis was delivered. A large accessory vessel compressed the ureter before it entered the lower pole of the kidney, and when this vessel was cut the pelvis emptied easily. I did not believe plastic surgery of the pelvis was indicated. The kidney was suspended to the psoas muscle. Routine closure was done in layers. Following the operation the patient developed atelectasis of the right lung. This responded to treatment and he was discharged September 16, 1944. When seen a month later he was free of pain, was working, and his urine was normal.

The third case, Mrs. R. D., age 54, a white female, was admitted to the Chesapeake & Ohio Hospital October 3, 1944, with complaints of substernal pains and occasional attacks of soreness in her left flank. Her blood studies and urinalysis were normal except for a low grade pyuria. Her temperature was normal. After several days of study by the medical service urological consultation was requested because of pyuria and flank pain.

On cystoscopy the right kidney was found to be normal in function and specimen. The left ureter was catheterized easily and 60 cc. of cloudy urine was aspirated. There was no appearance of P.S.P. from this kidney. A left retrograde pyelogram revealed a hydronephrosis with a complete

Fig. 2 (Case 2). Polygram, Retrograde, showing large hydronephrosis with marked constriction at uretero-pelvic junction. Moderate amount of kidney tissue.

Fig. 3 (Case 3). Pylogram, retrograde, showing huge hydronephrosis with almost a complete destruction of kidney tissue.

lack of outline of the calices and apparently very little kidney tissue. A diagnosis of hydronephrosis with complete kidney destruction was made and a nephrectomy was advised and agreed to.

On October 25, 1944, an enlarged left kidney with hydronephrosis was removed. On examination an aberrant vessel could be seen constricting the ureter at the ureteropelvic junction.

Following nephrectomy the patient had an extremely stormy convalescence for several days. A complication developed which the internists thought to be a cardiac involvement. She responded to medical treatment.

COMMENT

These three cases emphasize the extent of renal damage which may be due to aberrant renal damage which may be due to aberrant renal vessels. In the first case the symptoms were mild with slight kidney damage. In the second, the damage was more severe, but conservative treatment was still indicated. In the third, kidney damage had progressed to complete destruction.

Although in the first case there was a possible association of a mild ptosis, the other two cases were obviously due to extrinsic ureteropelvic obstruction. It is interesting to note that the acuteness of the symptoms did not correspond with the severity of the kidney damage.

At all times when dealing with kidney pathology one must consider the possibility of an aberrant vessel.

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CHILDREN NOT "LITTLE ADULTS"

Children are not "little adults" but a special species of human beings in various stages of evolution from dependence, irresponsibility and bewilderment to some degree of maturity. Adults who have forgotten their own childhood irresponsibility, noisiness, dirtiness, curiosity, dishonesty and resentiments toward grownups, or who were processed by strict discipline into "little adults," have a hard time tolerating these normal manifestations in children. A benign tolerance combined with a continuous educative process will keep all of these manifestations within bounds, whereas drastic measures usually increase the difficulty to an enormous degree.—Robt. P. Knight, M. D., in Bull. Menninger Clinic.

PSYCHOPHYSICAL EXAMINATION OF PROBLEM SCHOOL CHILDREN

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This study was undertaken through the cooperation of the Superintendent of Schools of Monongalia County, West Virginia, the Director, Monongalia County Health Department, and the Department of Psychology at West Virginia University.*

PURPOSE OF THE STUDY

The purpose of the study was to attempt to discover reasons for the slow and unsatisfactory progress of a selected group of school children and, if possible, to recommend treatment and procedures for correcting the same. One aim of the study was to determine whether or not a relationship existed between poor physical health and the inability of pupils to keep up with the school work. Furthermore, it was desired to determine the relationship between poor school work and social and emotional problems of the child.

THE SUBJECTS

The subjects for the study were 100 public school children who presented some forms of deviation from the average pupil in learning capacity or behavior. Because of the limited time available for examinations the number was arbitrarily set at 100, although that number does not include the complete list of pupils who presented problems in the schools of the county. The superintendent of schools sent letters to the principals of the various schools throughout the county inviting them to send for examination the children who were unable to keep up with their classes or who presented emotional or behavior problems.

The selection of children who presented problems was left entirely to the judgment of the teacher. *Twenty of the eighty-one* grade school principals replied. The number of pupils sent from each school ranged from one to ten, but the average number was five. There were twenty-one girls, and seventy-nine boys, or approximately four times as many boys as girls.

PROCEDURE

Physical examinations and psychological tests were made during the second semester of the school

*Acknowledgment is made to Miss Phyllis Hamilton for assistance in compiling the data.

year 1944-45 at the Psychophysical Clinic which was temporarily established at the University. The Director of Health performed the physical examinations and the Professor of Clinical Psychology supervised the psychometric tests which were administered by students majoring in psychology. These students had received previous training in testing.

The clinical program was scheduled after the social and school histories had been received from the teachers. The physical examinations included height and weight records, observations for postural disturbances, glandular defects, malnutrition and hernia in addition to an examination of ears, eyes, nose, throat, heart, lungs and abdomen; also included were hemoglobin determination, Wassermann test for syphilis and intracutaneous tuberculin test.

The psychological test used throughout the program was Form L of the Binet-Simon Test of Intelligence. In some cases additional tests were given, such as the Porteus Maze test, the California Personality Test for Children and a battery of Performance tests. Because many of these children were unable to read, the Betts Telebinocular Test for Reading Readiness was administered also. For those who presented definite backwardness in learning in general and in reading in particular, tests for eyedness, handedness and footedness also were given.

Approximately two hours were spent in examining each pupil exclusive of the time spent in making the laboratory tests.

In order to secure the school and social data, the superintendent of schools sent to each school principal the following questionnaire for each child who was to be referred to the clinic:

"Name of child ..... Age ..... Years in school ..... Write a paragraph giving information relative to the learning difficulties, discipline, conduct, health, physical handicaps, home conditions, etc.
Name of parent or guardian .....
Address ..... Phone ..... .
May we expect cooperation from parents in having this child examined? ....."

In addition to these records which were returned to the superintendent's office, additional information was obtained from the teachers who brought the children to the clinic.

PHYSICAL EXAMINATION

The physical examinations revealed sixteen different defects, many of the children presenting three, four or five of them. The defects, with their percentages, were as follows:

1.	Poor oral hygiene	92%
2.	Dental caries	84%
3.	Definite postural defects	69%
4.	Malnutrition	55%
5.	Enlarged tonsils	43%
6.	Defective vision	42%
7.	Enlarged cervical glands	39%
8.	Nasal obstruction	32%
9.	Elevation of body temperature	23%
10.	Secondary anemia	22%
11.	Underweight	10%
12.	Overweight	9%
13.	Cardiac involvement	6%
14.	Endocrine disturbance	5%
15.	Positive tuberculin test	3%
16.	Inguinal hernia	3%
17.	Syphilis	0%

From the above table it is evident that the most outstanding finding as a result of the physical examinations was gross neglect of teeth as shown by the 92 per cent revealing inadequate care and the 84 per cent displaying the need of immediate dental attention.

From the standpoint of physical efficiency and a state of wellbeing malnutrition was of next importance. This condition was manifest in 22 pupils by a definite secondary anemia as determined by the photo-electric colorimeter. Lack of vitamin D in early life was evident in one-third of the group. This condition manifested itself by deformed chests, prominent costochrondal margins, enlarged joints, protruding abdomen and other prerachitic manifestations.

Among the factors contributing to malnutrition in the above cases were: (1) complete lack of or inadequate amounts of milk in the daily diet, (2) lack of or inadequate breakfasts or school lunches, (3) lack of foods containing vitamin C such as tomatoes or citrus fruits, (4) inadequate amounts of green vegetables, and (5) too much of sweet and starchy foods.

Definite postural defects appeared in 69 per cent of the cases. Examination of the eyes by the Snellen Charts disclosed defective vision in 42 per cent of the group. As it turned out, many of the children were of low mentality, therefore, the results of the hearing tests were not considered accurate, although it did appear that several had moderate hearing defects. Enlarged tonsils were found in 43 per cent and enlarged cervical glands in 39 per cent of the cases. Thirty-two of the children examined showed evidence of nasal obstruction. In many cases this was accounted for by acute or chronic rhinitis. An elevation of body temperature was noted in 23 per cent of the pupils examined. Half of this number presented evidence of respiratory tract infection; the cause of the increase in temper-

ature of those in the remainder of the group was not determined.

According to standard weight charts 10 per cent were underweight and 9 per cent were overweight; five of the latter group presented glandular disturbances. Definite evidence of cardiac involvement was noted in six of the children. Four of these cases were probably the result of rheumatic fever and two were congenital in origin. The result of the Wassermann test for syphilis was negative in every child and only three of the entire group showed a positive tuberculin test. Inguinal hernias were found in three of the children examined, one child had an umbilical hernia, while six presented dilated inguinal rings.

PSYCHOMETRIC EXAMINATION

The results of the intelligence tests show great range in the mentality of this group as measured by Form L of the Binet-Simon tests. The results are shown in the following table:

Intelligence Quotient	*Percentage*	*Classification*
Below 50	7	Imbecile
50- 70	40	Moron
70- 80	18	Borderline
80- 90	13	Dull
90-110	18	Average normal
110-120	3	Superior
120-140	1	Very superior

From the foregoing table it can be seen that one-half of this group, or 47 per cent, would be classified as mental defectives while an additional 18 per cent are borderline in intelligence; in other words 65 per cent are below normal. On the other hand 35 per cent are normal or superior. Thirteen per cent are slow or dull normally. Eighteen per cent are average normal. Three per cent are superior and 1 per cent (one child) is very superior.

Those in the dull group (13%) were reported universally as being slow learners, four being noted as especially poor in reading. In the average normal group (18%) seven were reported as doing poor work, eight as poor in reading and three as poorly adjusted. Of the three who were classified as superior, one was a disciplinary case only, one was reported as nervous, inattentive, a dreamer and a slow learner, while the third was reported as generally retarded.

The one child with an intelligence quotient of 123 was unable to read. His school attendance was poor due to illness and he was regarded as unstable.

The Betts Telebinocular Test for Reading Readiness uncovered a larger percentage of eye defects than did the Snellen Chart used in the physical examination. The test with the manoptoscope showed 35 per cent of the group to be left-eyed, and about half of the left-eyed pupils were potentially left-handed also. Whether or not there is any relationship between eyedness or handedness and learning to read is still a moot question, but with these children it might be well to keep it in mind.

SCHOOL DATA

This group ranges in age from seven years and one month, to sixteen years. The grade range is from one to eight. It can be seen from the age-grade chart that 93 per cent of these children were retarded in grade placement, sometimes as much as five years. Six are in the grade normal for their years and one is advanced. On the other hand, while they are retarded so far as life age is concerned, 61 per cent are too far advanced in terms of mental age as seen in the mental age-grade chart.

The chief educational problem which this group presents, with two or three exceptions, is inability to learn, and specifically, inability to read and get the thought from the printed page. Doubtless it is this reading disability which is chiefly responsible for general inability to learn.

One would expect grade retardation and slow learning by pupils who are mentally subnormal, but this inability to learn is not limited to that group. The majority of cases with average or better intelligence show poor reading skill, although in several cases arithmetic was cited as the chief cause for retardation. However, even in arithmetic the root of the trouble might well be poor reading.

The poor reader, because he is a poor reader, fails to make a good personality adjustment and this feeling of weakness spreads in a way that is detrimental to learning in general. Consequently, some of the children are misjudged as to their true ability to learn. On the other hand, once the child has learned to read, learning in all fields goes by leaps and bounds, and the personality instead of retreating may become forceful if not aggressive. Moreover, it is a well known fact that attempts often are made to teach pupils to read before they are ready. One experiment carried on over a five year period with children with intelligence quotients ranging from 60 to 79 stressed social living and work habits in an enriched and stimulating environment and delayed the teaching of academic work until reading readiness was sufficiently advanced.

The result was that the pupils made rapid progress and were able to catch up with a control group and showed fewer maladjustments than the control group. In other words, when the teaching of reading was delayed until the child was ready for it, good progress was made academically and the personality of the child was not impaired.[1]

SOCIAL PROBLEMS

The children who presented disciplinary problems had intelligence quotients ranging from 64 to 113, or, in other words, from the borderline to the superior, but two-thirds of them came from the dull and low average normal groups. Evidently, it is the dull and slow learning child who, failing to gain attention by satisfactory work, gets it by misbehavior, or antisocial behavior, such as bullying, belligerency and petty larceny. Thus, the delinquents more often are found among children in the lower intelligence brackets rather than among those in the definitely defective group. Nervousness and emotional maladjustments were found throughout the range of intelligence.

Many of the problems seemed to be centered in the home. Forty of these children presented home problems, and in three cases the home was so poor that removal of the child from the home was recommended. The effects of poor homes revealed themselves chiefly in inadequate clothing, malnutrition and emotional reactions which prevented the child from making use of what intelligence he had, thus resulting in poor school adjustments.

Other unsatisfactory environmental conditions noted as possible causative factors affecting some of the children were alcoholism in the parents, irregular eating habits, poor sleeping conditions, inadequate rest and a foreign language spoken in the home. The children were largely from underprivileged families in the low socio-economic group, but in many cases there was adequate income due to wartime prosperity.

CONCLUSIONS

1. The results of the physical examinations showed that every pupil examined presented two or more signs of physical abnormalities. Over one-half of the entire group presented five or more positive findings.

It is important in this connection to note that the mentally defective children show a higher percentage of physical defects, notably in connection with social diseases such as scabies, impetigo, and itch. These conditions frequently accompany poor sanitation, often due to low incomes and poor living environmental conditions.

A continued study of the same children would be necessary in order to determine whether or not there is a direct relationship between defective physical condition and learning ability. The exception to this is the group of pupils showing an endocrine gland disturbance, a condition in which there is a definite relationship between the physical and mental development. However, it is evident that lowered resistance and general physical debility will diminish energy output, resulting in listlessness, inattention and lack of initiative to learn.

2. Home investigation is needed to determine the extent of home influence and the possibility for improvement. In several cases the investigation should be made with the idea of removing the child from the home to be placed in a foster home or an institution.

3. Social promotion has doubtless created some personality problems. (By social promotion is meant promotion on the basis of physical and chronological maturation, regardless of academic achievement). Many of this group physically and chronologically matured, are mentally retarded. Others have been promoted to work beyond their mental years and mental capacity. The competition thus encountered is too great and is the cause of definite mental and emotional upheavals and maladjustments to the extent that the child is unable to concentrate on the work in school.

SUGGESTIONS

1. Treatment for physical defects should be provided either by the family concerned, if able to do so, or by welfare agencies. The school authorities, the county health nurse, and the child welfare worker of the Department of Public Assistance should see that the recommendations for treatment are carried out.

2. A need for special classes can be seen when the reader notes that over half of the pupils in this group are classified as mental defectives and cannot progress normally and satisfactorily through public schools as they are organized at present. The ordinary classes under the present system are too large to be handled adequately by one teacher and consist of too many diverse elements and problems. A special class for feebleminded children, if realized, would prepare these individuals to adjust to

(1) Patterson, R. M.: Evaluation of a Prolonged Academic Program for High Grade Mentally Deficient Children in Terms of Subsequent Progress. J. Exp. Ed. 1944, No. 13, pp. 86-91.

every day demands, and would help them to develop the potentialities of which they are capable. Vocational training well might be a feature of these special classes. Those of dull or borderline intelligence might be placed in a group for instruction on a somewhat higher level. These children, while perhaps not feebleminded, are slow, and with special teaching methods might improve considerably.

3. A remedial reading and spelling class for those of normal intelligence is recommended also. Reading techniques have been stereotyped to such a degree in the public schools that those who cannot benefit by the selected method have no recourse to other techniques which might be a great aid in teaching normal intelligent children the fundamentals of reading and spelling.

4. It is evident that a more thorough knowledge of child psychology should be required for members of the teaching profession. Slow learning does not necessarily mean inability to learn, but inability to read slows up learning. Many teachers do not recognize the handicaps of emotional maladjustments and personality factors which are at odds with normal comprehension and learning.

Since this study does not embrace all pupils who present psychophysical problems, the results would be true of larger numbers of pupils in this county and other counties throughout this state and possibly in other states.

CHRONOLOGICAL AGE - GRADE CHART

AGES	6 6:5	6:6 6:11	7 7:5	7:6 7:11	8 8:5	8:6 8:11	9 9:5	9:6 9:11	10 10:5	10:6 10:11	11 11:5	11:6 11:11	12 12:5	12:6 12:11	13 13:5	13:6 13:11	14 14:5	14:6 14:11	15 15:5	15:6 15:11	16 16:5	TOTAL
GRADES 1			1	4	4	1	1	1	1		1											14
2			1		4	4		3	2	3	1											18
3			1		1	1	4	2	1	3	2	3	2			1						21
4									1	2	2	2	4	1	1	1		2				16
5										2	1	1		1	2	1	2		2			12
6												1	2		4	3		3	1		1	15
7																1		2				3
8																				1		1

THE BOXES INDICATE THE PROPER GRADES FOR AGE

6 IN PROPER GRADE FOR AGE
1 IN ADVANCED GRADE PLACEMENT
93 RETARDED IN GRADE PLACEMENT

MENTAL AGE - GRADE CHART

AGES	3 3:5	3:6 3:11	4 4:5	4:6 4:11	5 5:5	5:6 5:11	6 6:5	6:6 6:11	7 7:5	7:6 7:11	8 8:5	8:6 8:11	9 9:5	9:6 9:11	10 10:5	10:6 10:11	11 11:5	11:6 11:11	12 12:5	12:6 12:11	TOTAL
GRADES 1	1		2	1	2	1	2	1	2		1			1							14
2				1		1	2	5	3	2	1	1			1				1		18
3					2		1	4	2	2	4	1	2	1	1	1					21
4							1	1	1	1	3	4	3	1	1						16
5									2	2	1		3	2			1	1			12
6								1	1		1	1	1		3	1	1		4	1	15
7									1			1			1						3
8												1									1

18 IN PROPER GRADE FOR THEIR MENTAL AGE
21 HAVE MENTAL AGES ABOVE THAT OF THEIR GRADE PLACEMENT
61 ARE PLACED IN GRADES TOO ADVANCED FOR THEIR MENTAL AGE

SUBPECTORAL ABSCESS

(CASE REPORT)

By LT. COL. JOSEPH M. DONALD, MC,
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and
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Kanavel [1] is quoted as follows: "Attention should be drawn to the so-called subpectoral phlegmons. These are in reality abscesses arising from infected glands. They have assumed prominence in clinical surgery since, in addition to abscesses developing here from a frank infection of the hand, we not uncommonly have these abscesses develop from insignificant or unnoticed infections in the hand, as for instance, in one of our cases it developed after an impetigo had disappeared. In other cases the patient presents the systemic picture of severe toxemia with little local evidence of infection about the axilla, due to the fact that the abscess is deeply seated under the pectoralis major muscle and axillary fascia. For some days only an indefinite pain may be complained of in the shoulder region, with a hardly noticeable swelling of the axilla. Upon operation, the surgeon is amazed by the quantity of pus that has filled the axilla and extended under the pectoral and scapular muscles."

The following case report is presented because it so well illustrates: (1) the possible severity of infections arising from insignificant lesions of the hand or forearm, (2) the paucity of local physical signs despite the presence of an extensive subpectoral abscess, (3) the effect of sulfonamides and penicillin on the course of the infection and (4) the necessity of incision and drainage despite this therapy.

On April 22, 1944, a 19 year old soldier was admitted to an army station hospital, complaining of chills and fever. In addition, there was a moderate dull aching in the right axilla and a slight headache. Four days prior to admission, the patient had suffered a small burn on the right wrist.

Examination revealed a well developed, moderately obese, young adult male not appearing ill. The face was slightly flushed. The admission temperature was 101.4 F. There was a superficial lesion on the dorsum of the right wrist about the size of a dime, which did not appear infected and was not tender. There was one palpable lower axillary lymph node about the size of an almond and quite tender. There were no signs of lymphangitis. The general physical examination was otherwise negative.

On the evening of the day of admission, the temperature rose to 104.2 F, but over night this fell to 101.4. On April 23, however, the patient again had chilliness followed by fever of 105.6 F. and appeared quite toxic. Blood was drawn for culture and the patient was given 4 Gm. of sulfadiazine to be followed by 1 Gm. every four hours. The temperature remained above 102.6 F. for forty-eight hours. On April 25, the blood level of sulfadiazine was 2.4 mg. per 100 cc.; this was attributed to a very large fluid intake and output and accordingly the dosage of sulfadiazine was doubled.

Meanwhile, the right axillary lymph node had become small and much less tender. However, on April 25, there was a large area of moderate fullness and tenderness on deep pressure, extending from the anterior to the posterior axillary lines between the 3rd and 12th ribs on the right. After increase in dosage of sulfadiazine, the temperature promptly subsided to normal, the patient's general condition improved remarkably, and the tenderness decreased.

After two days during which the patient's temperature remained normal, a gradual rise in temperature again developed. The sulfadiazine was discontinued on May 3rd, after a total of 114 Gm. had been given over a period of ten days. Although the blood level had not risen above 9 mg. per 100 cc., it was suspected the patient might have a drug fever. By May 5th, the temperature had again subsided to normal.

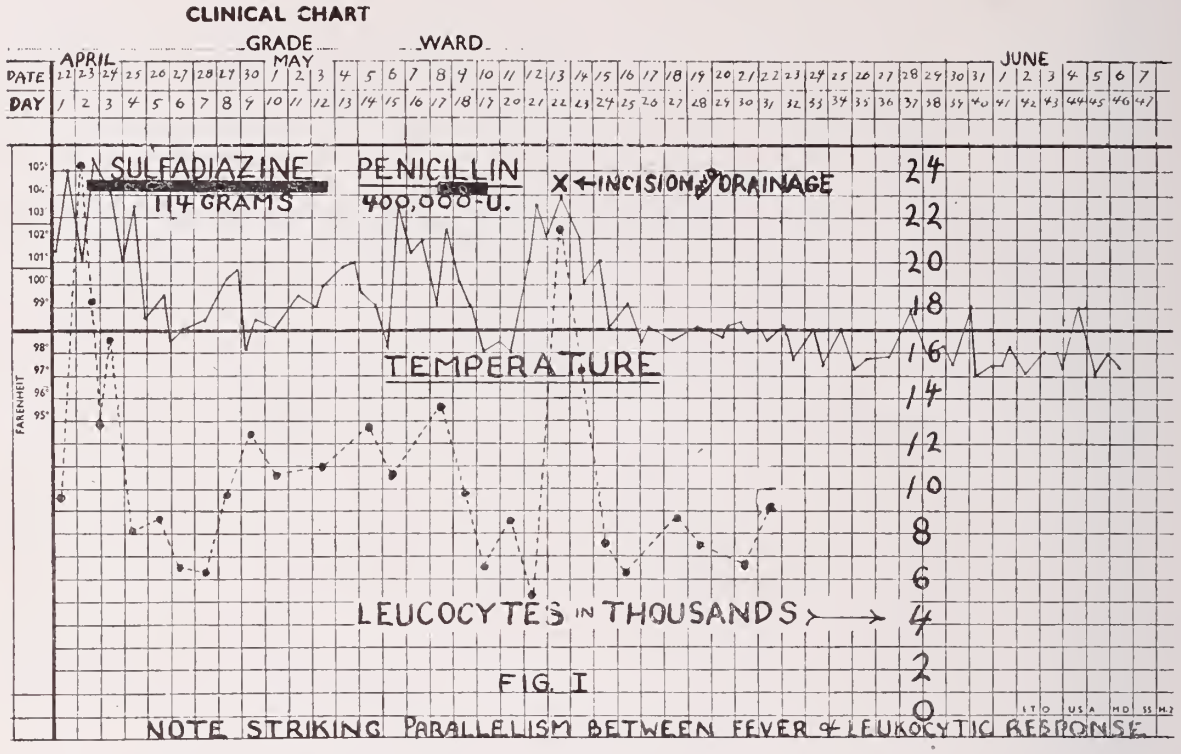
On the afternoon of May 6th, the soldier had a moderate chill followed by fever of 103 F. Again there was a diffuse area of tenderness on deep pressure over the right lower thorax in the axillary line. There were no superficial signs of inflammatory disease and the axillary glands were small and only slightly tender.

Since the temperature remained elevated and the patient appeared quite ill, on May 8th the administration of penicillin was started, 20,000 units being given intramuscularly every three hours for 20 doses, making a total of 400,000 units. The patient again improved and the temperature subsided to normal where it remained for forty-eight hours.

On May 12th, once more the patient had a severe chill and the temperature rose to 103.4 F. But, this time, there was a small area of localization about three inches below the armpit in the midaxillary line. There was an area about the size of a dime which was red, tender and fluctuant. Hot moist compresses were applied continuously for twenty-four hours and the patient was transferred to the surgical service for incision and drainage.

LABORATORY FINDINGS

Blood cultures taken on April 23rd and May 5th showed no growth. An apparently healthy eschar



was removed from the small wrist lesion on April 23rd and a culture, made from the slight amount of serum beneath, revealed a nonhemolytic staphylococcus and a hemolytic streptococcus. Urinalysis done on April 27th revealed albumin, numerous glandular casts and a few lencocytes. Three to five red cells per H.P.F. and sulfadiazene crystals were found in the urine on three or four occasions. Repeated urinalyses were otherwise negative. Two blood Kahn tests were negative. Chest x-rays taken on April 23rd and 24th were essentially negative. The leukocyte counts are graphed on the temperature chart and demonstrate a striking parallelism (Fig. 1). The red blood cell count remained above 4.5 millions throughout.

On May 13, 1944, under sodium pentothal anesthesia, a small reddened and fluctuant area in the right midaxilla was aspirated and a small amount of pus was obtained for culture (this revealed a nonhemolytic streptococcus). A transverse incision was then made and a large quantity (approximately 10 ounces) of thin pus escaped under pressure. The incision was enlarged and digital exploration revealed a large, well walled off abscess cavity deeply situated beneath the pectoralis major muscle. The cavity extended posteriorly beneath the scapular muscles. One Penrose drain and two vaseline gauze drains were inserted into the cavity. Symptoms rapidly subsided following surgical drainage and, on June 7th, the soldier returned to duty.

COMMENT

This case represents a nonhemolytic streptococcic infection which had its origin in a small lesion of the wrist. The infecion apparently extende through the deep lymphatic system to the axillary lymph glands, from which there was a spread into the subpectoral and subscapular regions with a resulting large abscess. The development of such a large collection of pus in this region with so few clinical signs of abscess formation was rather amazing. While our attention was drawn to the rather amazing. While our attention was drawn to the right axilllary space from the beginning, a search was made for other causes of the patients fever and toxemia because of the masked signs. Seems probable that proper diagnosis was delayed in this case because of two factors: (1) the fact that the soldier was moderately obese and the large abscess was beneath a thick layer of subcutaneous adipose tissue, and (2) the administration of sulfadiazine clouded the picture by apparent alteration in the course of the infection.

The progression of this infection conforms to the common opinion that nonhemolytic streptococcic infections are quite resistant to sulfonamide and penicilin therapy. On the other hand, assuming that the infection was one of a mixed bacterial origin as suggested by the culture of staphylococci and hemolytic streptococci from the wrist lesion, these organisms had been rendered noneffective by the drug therapy. Furthermore, it is a well accepted fact that after frank abscess formation, regardless of bacterial etiology, incision and drainage are essential. It should be kept in mind that a large subpectoral abscess may occasionally occur following relatively insignificant infections of the upper extremity and associated with minimal local physical signs.

REFERENCE

1. Kanavel, Allen B., Infections of the Hand. Sixth Edition pp. 311-312. Lea and Febiger. Philadelphia.

OPTIMISM NEEDED IN CANCER CONTROL

In the program of cancer control the doctor is the key man. On his degree of suspicion, upon his ability to recognize precancerous or early lesions, upon his recommendations depend not only the success of the program but, more important, the life or death of the individual. The first doctor seen by the cancer patient has more to do with the ultimate outcome of the case than the surgeon, radiologist, specialist, or clinic. Such responsibility imposes the obligation of being informed and competent or at least willing to seek competent consultation.

Unfortunately, too many doctors still have an ingrained pessimism regarding cancer that is not justified by the facts, and which reacts to the detriment of their patients. Almost 40,000 five-year cures of definitely authentic cases of malignancy in the archives of the American College of Surgeons attest the curability of some cancers. Optimism is an important corollary to cancer control.

Delay in the treatment of cancer is dangerous. If the delay is due to the patient's ignorance or fear, it is bad enough; but if it is due to the doctor's carelessness or incompetence, it is practically criminal. The doctor's attitude plays an important role. If he makes light of a lesion, the patient will not regard it seriously either, and if he is instructed to return for further examination at some indefinite time he will be apt to postpone or neglect action until it is too late.—Edmund Zimmerer, M. D., in The Mississippi Doctor.

MORPHINE IN WAR AND PEACE

During the war the care of battle casualties obviously necessitated the adoption of certain routine procedures, the application of which could be easily understood by medical corpsmen. Included in this routine was the administration of morphine which was facilitated by the use of syrettes. Another was the use of sulfanilamide powder locally and the administration of sulfanilamide tablets by mouth in the treatment of the less extensive wounds. Both of these routines served for a while but they served no better purpose than to demonstrated on a large scale that standardized treatments are still not good procedures in medical practice.

In the hands of the medical officer the syrette was a rapid and convenient means of administering morphine to vast numbers requiring treatment during heavy action. The same officer on his return to civil practice will have more time to meditate on the indications for morphine. He has already realized that the local use of sulfanilamide has been discredited by Meleney, and Beecher has shown he must be more discriminate in the use of morphine.—International Medical Digest.

EMOTIONAL CONTROL IN HEART DISEASE

In addition to marvelous and life-saving drugs, proper diet and surgical treatment of heart disease, or more properly cardiovascular disease, there are three other therapeutic measures of vast importance. They are not new. Their value has long been known to the medical profession. The technique of the administration of these remedies is difficult to master and the resistance of patients to taking them is often almost impossible to overcome. If these remedies could be disposed from a bottle in teaspoonful doses, according to the doctor's directions and the patient's need, people suffering from cardiovascular disease would lead longer, more comfortable and more useful lives.

These three therapeutic measures have the protective value of vaccines and the curative qualities of serums. As a preventive of cardiovascular disease and as a remedy when damage has occurred, there are no drugs that will give more than temporary relief. These three well known remedies are emotional control, rest and exercise. Unless the patient afflicted with heart disease can be taught to acquire emotional control, the other two measures will be largely inoperative. Physieians will learn that study of the life of man and consideration of the bombardments his nervous system endured and continues to endure, both genetically and individually, will add greatly to their ability to administer the psychological teachings needed by patients who are victims of heart disease.—Emmet Keating, M. D., in Illinois Medical Journal.

WOMAN DOCTOR INDISPENSABLE IN INDIA

When we consider that except for a comparatively small number of those who are literate and more advanced, the vast majority of India's 200 million women are practically debarred from receiving medical aid from men, we can readily understand why the woman doctor is indispensable for the health and well-being of the women of this country. This is quite conclusively borne out by India's maternal and infant mortality, which is the highest in the world, four times that of the United States. Such a high rate of mortality is the inevitable result when mothers are dependent upon the crude and unhygenic ministrations of untrained midwives.—Medical Woman's Journal.

THE DOCTOR AND PSYCHOSOMATICS

The doctor's job after all, is to help the patient. And if psychosomatics means anything, it means that manipulating the social and emotional forces which rain down on the patient is an essential part of "overall" therapy. A doctor may advise a widowed mother to seek the financial or emotional security of a job. If she cannot accept work unless she finds a day nursery in which to place her children, then the doctor's job must include knowing where (or at least, how) to find such a nursery. To prescribe a hobby is empty advice unless the practitioner also knows how the patient can get the instruction and facilities which that hobby requires. What the physician needs, in a word, is a sort of communal "know-how." It comes back, of course, to the basic point: that the doctor today must know the total community. Anything short of that is the treatment of diseases, not the treatment of people.—J. Med. Soc. N. J.

The President's Page

For one time I count it a high honor to use this page to present a matter of pure sentiment, of the deepest and most sincere sentiment of my heart.

When all the records have been made complete it will appear that West Virginia will have lost hundreds of boys in World War II. Four of these were members of our own group. These boys, the flower of our civilization, we could illy afford to lose. Many will be listed as "missing" and may, by the mercy of God, yet be spared to us.

It happens that every one of those boys is, or was, known by some one of us; we have treated them in our offices or in their homes. We have called each of them friend.

Thinking of them, I know the price we have paid for what we glibly call our blessings: I know we owe to them an infinite debt.

We must never bring ourselves to think of these boys in the past tense. With tremendous honesty of conviction, we should say to their parents that in a real sense the glorious young lives go on and on. As we visit their homes today, and all the tomorrows, to minister to their loved ones we should say to ourselves, "They shall not grow old, as those of us who are left grow old." They help us. They rebuke us for our immobility and always they try to rescue us from our selfish complacency. They make us strive to be better men, and real physicians.

What I am desperately eager for is that not only the name and the memory but also the influence of these boys shall be saved for this and succeeding generations. They gave everything that we and other boys might know and live in a world of peace and happiness.

Whatever we elect to do for them must be worthy. We must not present as tribute to their memory something that is transient and cheap, something that is not consistent.

I cannot escape the feeling that mere words are futile. We must be willing to be of service to their parents, their wives and their children as a fitting tribute to their memory. Such action on our part will be an enforcement of their influence. I know of no more noble way for us to show our gratitude. Service rather than mere words. In this way we may best apply the thought given us by the Great Teacher and Healer: "By these fruits, we shall happily be judged."

While we, and many others grieve for them we clearly have a mandate from them—a summons to strengthen ourselves for the years ahead through service. We can come to but one conclusion, that this is the first item, this is the supreme obligation: We shall honor them.

Andrew E. Quick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journal, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

THIOURACIL

Whenever a new drug appears upon the therapeutic horizon, there is always a rush to "try it out." Within recent years the Federal Food and Drug Act has dampened very definitely the ardor of experimentation on the medical firing line due to the fact that drugs are released for interstate commerce only after each individual product has been fairly well evaluated as to physiological action, therapeutic value, untoward manifestations and outright toxic properties. Despite this care on the part of the Federal Government, thiouracil has appeared upon the open market when it is very questionable whether the medical profession realizes its inherent dangers.

Thiouracil appears of unquestioned worth in the treatment of thyrotoxicosis. The accumulated literature on the drug clearly shows that it is effective against hyperthyroidism regardless of whether due to the diffuse or the nodular variety of goiter. Its depressant effect upon the metabolic rate is such that at times hypothyroidism, or even myxedema, follows its administration. However, the drug apparently has one very dangerous toxic property, its depressant action on leucocyte production, which at times in the presence of infection seems to progress to agranulocytosis, which in several instances has resulted fatally. For a long time it has been known that in hyperthyroidism there is disturbance of the function of leucocyte production in that the normal lymphocyte-granulocyte ratio is changed with a numerical increase of the former and a decrease of the latter. It is, of course, possible that while thiouracil tends to restore the metabolic rate to normal, it may tend to accentuate an already present tendency of the disease to pathological hematopoiesis.

The toxicity of thiouracil is well presented in two articles in the February 9 issue of the *Journal of the American Medical Association.* Moore and his collaborators present an analysis of the untoward manifestations observed in 1,091 patients studied in the United States and England and find that the most dangerous period is between the fourth and eighth week of administration. Agranulocytosis during thiouracil administration is, as always, a very grave condition and its appearance demands prompt withdrawal of the drug, heavy doses of penicillin, and the administration of crude liver extract and pyridoxine. We quote their summary of approximate incidence of untoward manifestation:

1. Death under administration of the drug, 0.7 per cent.
2. Death attributable directly to the drug, 0.5 per cent.
3. Agranulocytosis, 1.8 per cent.
4. Death rate in agranulocytosis, 26 per cent.
5. Leukopenia without agranulocytic angina, 3 per cent.
6. Fever, 5 per cent.
7. Glandular enlargement, 5 per cent.
8. Miscellaneous reactions, 2 per cent.

The second article is an evaluation of the drug by Van Winkle and his collaborators representing work done by the Food and Drug Administration and the medical departments of various drug firms which produce thiouracil. This summation of the observations of 328 clinical investigators on 5,745 patients represents the best type of cooperation between commerce and science and we trust is the harbinger of a new day in drug production. Their summary epitomizes practically everything known of thiouracil and is so well put that we quote it in its entirety:

1. Thiouracil is effective in the management of thyrotoxicosis and possibly thyroiditis.

2. Thiouracil is of no value and should not be used in other derangements of thyroid activity or in conditions not associated with hyperthyroidism.

3. More information should be secured concerning the induction of remissions by thiouracil and the factors affecting the permanence of these remissions.

4. At present the optimum dosage schedule appears to be 0.4 Gm. per day, in divided doses ini-

tially, and after the symptoms are controlled or the basal metabolic rate is within the normal range the dose should be reduced to 0.1 or 0.2 Gm. per day. More information is needed on the effectiveness of lower doses.

5. On the basis of the available information, it can be recommended only that thiouracil be used for preoperative treatment or for those patients for whom operation is contraindicated. The wisdom of depending on thiouracil as a substitute for operative procedure can be determined only by following the results of investigations carried on for longer periods.

6. Many patients, particularly those who have received previous iodine therapy, do not respond immediately to thiouracil therapy; hence medication should be continued for at least thirty days, or, for a patient to whom iodine has been administered, for sixty to one hundred days, before concluding that no response to thiouracil is possible.

7. Approximately 13 per cent of all cases can be expected to show some adverse reaction to thiouracil therapy.

8. The most frequent and severe complications of thiouracil therapy are granulocytopenia, leukopenia, drug fever and dermatitis. The appearance of jaundice, purpura and anemia has been reported and should be watched for and, if observed, calls for careful evaluation of the clinical condition of the patient before thiouracil therapy is resumed.

9. Granulocytopenia occurs in about 2.5 per cent of cases and is the most serious complication of thiouracil therapy. This reaction tends to occur in the early weeks of treatment, and 80 per cent of the cases were seen by the twelfth week of therapy. No relationship to the dose of thiouracil was apparent. Treatment of this complication should consist of massive doses of penicillin (500,000 units per day).

10. Leukopenia had an incidence of 4.4 per cent, seen early in treatment, 75 per cent occurring in the first eight weeks but not related to dosage. More information is needed on the relationship between leukopenia and granulocytopenia.

11. Drug fever had an incidence of 2.7 per cent, seen very early in treatment, 85 per cent occurring in the first four weeks but not related to dosage. Reactions occurring early tended to be more severe than those occurring late in treatment.

12. Skin reactions had an incidence of 3.3 per cent. Urticaria was the most common, but a wide variety of other dermatoses were seen. None were deemed serious, but caution is advised in continuing therapy in the presence of these complications.

13. Three fourths of the investigators were of the opinion that the incidence of adverse reactions of thiouracil was less than the incidence of complications from present methods of treatment.

14. It should be emphasized that patients receiving thiouracil therapy should be carefully watched, especially during the first twelve weeks of therapy. Patients should be instructed to report immediately to their physician if any adverse symptoms such as sore throat, fever, coryza or malaise are experienced.

15. Since the mild and the juvenile types of hyperthyroidism can frequently be controlled adequately by iodine therapy alone, thiouracil should not be used for these patients unless the safer form of therapy proves ineffective.

A BLOW TO SOCIALIZED MEDICINE

President Truman probably did not realize it at the time, but when he signed the measure enacted by Congress to remove the medical staff of the Veterans Administration from Civil Service, he dealt socialized medicine, admittedly an Administration project, a major blow. He also gave Civil Service a setback. Congress passed the measure at the request of Gen. Omar N. Bradley, new Veterans Administrator. The request was based on difficulties his predecessor experienced in "weeding out" undesirables on the medical staff because of their Civil Service ratings. These difficulties were brought out in the testimony offered at hearings on the subject several months ago, by statements of Veterans Administration officials.

Under provisions of the new law, appraisal boards will be created in virtually all 97 veterans hospitals to recommend which doctors, dentists and nurses among the present Veterans Administration staff are to be retained. The "thoroughly incompetent" will be dismissed.

General Bradley has stated that the reorganization bill "was designed to bring us the best medical men," and "we are getting about 20 applications a day," which "is 20 times more than we were getting before." The implication here is quite clear that under Civil Service the best results could not be obtained; that under the old order incompetents forced their way on the medical staff and retained their positions through Civil Service backing. If such conditions prevailed in the Veterans Administration, it is most likely that they would become a feature of socialized medicine, for there can be little doubt concerning the method of selection of doctors, dentists and nurses under a nation-wide federal program. Nor can there be any doubt as to the results that would be obtained.

Here is a case that gives the American public food for thought concerning Civil Service. The natural question posed is how widespread are conditions, such as those that prevailed in the Veterans Administration medical staff, where the Civil Service controls the selection of employees?

The necessity for Congress to pass this remedial legislation should be an object lesson to that august body when considering the adoption of any form of socialized medicine. In spite of the best intentions of all concerned, the very situation which has crippled the medical service of the Veterans Administration so far might be confidently expected to develop in any other similar plan involving the control of medical practice by laymen.

RED CROSS STATISTICS AMAZING

The impressive sum of $5,280,390 has been contributed to the American Red Cross by the people of West Virginia during the past four years, according to a report prepared by Mrs. Grace F. Wylie, a representative of the eastern area headquarters.

But figures, even the impressive ones, have, at best, a momentary impact, and then are forgotten.

Think of them rather as services to living and hopeful people, alive and hopeful because of the generosity and tirelessness of the 62 Red Cross chapters in West Virginia and the thousands of volunteer workers who rallied around them from the moment of Pearl Harbor to the present time. The war work has left the citizens of West Virginia with a stronger sense of obligation, both to their fellow citizens and to the people of the world at large. The well-being of West Virginians, they realize, depends on the well-being not only of their neighbors in Martinsburg and Morgantown, but their neighbors in London, in Chungking, in Stalingrad.

There were services to the armed forces, not only of West Virginia, but to boys from all other states. Think of the cases of bandages, of clothes sorted and repaired, of dried blood plasma, leters written, hospitals and camps visited.

There were Home Service cases, more than 11,140,000 of them, and there will be many more in the immediate future. Soldiers and sailors who left their families behind, who worried about them, have not looked in vain to the Red Cross and its workers in West Virginia to help take care of them.

Meanwhile, there was Nursing Service to render. The armed forces took a great proportion of the state's doctors and nurses. The Red Cross organized in home nursing and issued thousands of certificates to those who had learned to take care of their families and neighbors until the doctor came.

West Virginia gave 7,210,539 hours to Volunteer Special Services, an incredible amount of time. A factory could keep a thousand men employed for six months before they put in as many hours. The hours spent by these volunteers could have rebuilt entirely a town like Charleston. The workers didn't rebuild houses, they rebuilt lives with their modest, make-the-most-of-spare-minute contributions. They drove in the Motor Corps, folded white mountains of surgical dressings, and sewed, sorted and processed miles of clothing.

The war is over, but it leaves tens of thousands of men, women and children, many of them trained in new skills, and all of them socially conscious, all of them looking for something else to do, something more to do, looking to the American Red Cross to give them leadership. There will be disasters, as there were during the war, with more than 13,000 people assisted by the Red Cross. There will be the mounting load of Home Service cases. Services to the armed forces, for those now in the army of occupation, or those waiting to go overseas, nursing service, nurses' aides, first aid and water safety, accident prevention, nutrition, the Junior Red Cross —all these things will carry over from war years into the peace-time years ahead.

West Virginians have shown their readiness to carry on as long as human needs exist. They can and will carry on in peace as well as in war.

CHICAGO GLEANINGS

The meetings of the various medical groups held at The Palmer House early in February—The Conference of Editors and Secretaries, The National Conference on Medical Service, The Congress on Medical Education and Licensure, and others—left us with some rather definite impressions as to medical trends. Although we deny the gift of prophecy, we present these trends as forecasting the future.

1. Voluntary sickness insurance must be developed on a statewide basis very promptly or else the long arm of the federal government will enforce the compulsory governmental variety upon us to the very great detriment of medical service, medical progress, and the populace generally. These state plans must be correlated and coordinated and some plan of reciprocity must be worked out among them.

2. The American Medical Association is becoming definitely more liberal in its views and plannings, as witness the address of the Editor of the Journal on "The Public Relations of American Medicine," and the revision of the advertising rules of The Council on Pharmacy and Chemistry, although the latter are still strenuous enough.

3. The failure of acceleration of the curriculum in medical education. While some such scheme may have been a necessity in meeting the war emergency, it has resulted in injecting into the corpus of the profession a large group of physicians inadequately trained both basically and clinically. Almost all the grade A schools are now in the process of deceleration and by the end of 1946 will have completed the process.

4. The questionable value of basic science boards. When 18 boards, all theoretically having the same purposes and objectives, have developed 12 different techniques of operation and administration, there is question as to the wisdom of the basic philosophy involved in the movement.

5. The further intrusion by the federal government into the affairs of states, especially in the field of health and medicine. While there is con-

siderable question as to the final form, it seemed to be generally admitted that all the segments of the Murray-Wagner-Dingell bill would, within the reasonably near future, be enacted into law with the possible exception of compulsory governmental sickness insurance, and that the only way to prevent this catastrophe is for the profession to offer a more satisfactory voluntary plan.

6. The majority of the people of the United States actually want some method of prepaid medical service.

The Chicago series of meetings was very informative and stimulating. The attendance was smaller than expected, due probably to continued transportation difficulties and crowded hotels. With improvement in these conditions, there should be a marked increase in attendance at the meetings in 1947.

MEDICINE TODAY AND TOMORROW

One of the most important fields in which medical education needs direct attention is psychiatry. I do not mean that every doctor must be a phychiatrist, or even that a much-needed increase in the number of psychiatrists will wholly answer the problem. I mean, rather, that greater attention must be given to developing an attitude of mind enabling the doctor to take into consideration the emotional and environmental factors which contribute to physical illness. In the process of educating the young physician of the future, this type of training is essential if he is to understand these factors and, through this understanding, to deal more capably with patients of all types.

Indeed, we must count on medicine to develop the kind of personality which is needed to soothe the harrowed spirit of the postwar world. It will not be enough to practice perfect medicine in the perfectly-equipped diagnostic center or in the hospital in a mechanized routine way. It will rather be necessary to meet some of the intangible factors which will be disturbing the inner serenity of the patients of the next decade. There will be very few people who will not have been upset in some way by the war or postwar adjustments.

It is to be hoped that, in the process of demobilization, the teachers will return early to our medical schools and hospitals, and that these schools will also seek out the men, and women, too, who have learned how to apply knowledge which semed radical and even queer a decade ago.

Some of these young physicians have done a tremendous — a remarkable — job. They have learned great lessons to pass on for the future. It has been their responsibility to keep very valuable men sane, sound, and happy. They have been encouraged to apply new knowledge which it would have taken traditional medicine decades to accept. We will be wise if we seek out these leaders and put them in touch with the young doctors of the future, who will be a little bit jealous because they have not had the war experience. They will be anxious to learn all that they can from those who actually have been participating.—Watson B. Miller in J. Ind. St. Med. Assn.

General News

DR. CLAUDE B. SMITH HEADS NEW VETERANS AFFAIRS COMMITTEE

A committee has been appointed by Dr. Andrew E. Amick, president of the West Virginia State Medical Association, to confer with representatives of the Veterans Administration at Washington concerning out-patient care of West Virginia veterans in their home communities. The committee is composed of Dr. Claude B. Smith, of Charleston, chairman; and Drs. Thomas L. Harris, of Parkersburg, Cecil O. Post, of Clarksburg, Ralph J. Jones, Jr., of Charleston, and Francis A. Scott, of Huntington.

The first meeting of the committee was held on February 17 at Charleston, and full report of the negotiations to date is being made at a meeting of the Council at Parkersburg as this issue of the Journal is on the press (February 24). The Veterans Administration has already agreed upon a program for local medical care of veterans with the Monmouth County (N. J.) Medical Society, the Kansas Medical Society, and Michigan Medical Service. While full details of the West Virginia program have not yet been worked out, it is probable that an effort will be made to enroll all members of the State Medical Association for service in a statewide program. Veterans will have free choice of doctors, and all members of the Association will be eligible to make examinations for pensions, insurance and retirement benefits.

It is understood that male veterans may be hospitalized in a private hospital only for service-connected and service-aggravated disabilities, but female veterans may be treated for service and non-service connected disabilities under certain conditions.

If the Council approves the program that is being outlined by the Veterans Affairs Committee, complete information on the subject will be mailed immediately to all members of the State Medical Association together with the proposed fee schedule. An enrollment card will be enclosed and the members will be asked to return the card certifying their willingness or unwillingness to participate in the program.

With Council approval, it is probable that negotiations will be completed with the Veterans Administration shortly after the first of March.

79th Annual Meeting

WEST VIRGINIA STATE MEDICAL ASSOCIATION

HUNTINGTON

May 13, 14, 15, 1946

DR. HANCOCK NEW SUPERINTENDENT AT ANDREW S. ROWAN MEMORIAL HOME

Dr. Henry H. Hancock, of Union, has been appointed by Governor Clarence W. Meadows as superintendent of the Andrew S. Rowan Memorial Home for aged and infirm white men and women, at Old Sweet Springs, Monroe County, to succeed Dr. George P. Evans, who resigned effective February 1. Doctor Evans has served as superintendent since July 1, 1945. Previously he had been engaged in industrial practice at Iaeger in McDowell County.

Doctor Hancock has just returned from overseas duty with the army. He served as battalion surgeon with the third army in campaigns in Morocco, Tunisia, Sicily and Italy. Since January 1944, he has been instructor at the Medical Field Service School, Carlisle Barracks, Pennsylvania.

Doctor Hancock graduated from the University of Virginia School of Medicine in 1937. He interned at the C. & O. Hospital, at Huntington, and served a one-year residency at the C. & O. Hospital, at Clifton Forge, Virginia, after which he located at Union.

Doctor Evans plans to resume industrial practice in southern West Virginia early in the spring.

STUDIES MEDICALLY INDIGENT PROGRAM

A sub-committee of the Interim Committee on public health matters has been named by John E. Amos, Speaker of the House of Delegates, and Arnold Vickers, President of the Senate, for the purpose of making a study of the problem of medical and hospital care for the medically indigent in this state.

The committee is composed of W. Broughton Johnston, of Princeton, majority leader in the Senate, J. Hornor Davis, of Charleston, majority leader in the House, Dr. R. J. Wilkinson, of Huntington, Dr. D. A. MacGregor, of Wheeling, and Dr. Carl M. Frasure, of Morgantown. Doctor Frasure, who is executive secretary of the Interim Committee, is chairman of the sub-committee.

The first meeting of the committee was held at Charleston the middle of February and plans laid for an immediate study of the need for medical care for this particular class of citizens, and a report will be made to the full committee at a meeting which will probably be held early in March.

NCMS ELECTS OFFICERS

Dr. Cleon A. Nafe, of Pittsburgh, secretary of the National Conference on Medical Service, was elevated to the presidency of that organization at the 19th annual meeting at Chicago, February 10. Dr. Creighton Barker, secretary of the Connecticut State Medical Society and former member of the executive committee, was elected secretary.

The one-day program featured addresses by representatives of labor and agriculture, the former advocating passage of the Truman Health Bill, and the latter bitterly opposing it. J. S. Jones, of St. Paul, secretary of the Minnesota Farm Bureau, stated that his organization, composed of 55,000 farmers, stood with medicine in opposition to the enactment of compulsory health legislation.

QUARTERLY REVIEW OF PEDIATRICS

A new publication, "Quarterly Review of Pediatrics," made its initial appearance in February.

The prime function of this new Journal is to make it feasible for the busy physician to keep abreast of the most recent progress in all branches of pediatrics with a minimum of time and effort. The Review will also serve as an authoritative guide to original sources when more detailed information is desired.

From a great diversity of national, state and special journals in this country and abroad the editors will select for abstracting, as promptly as possible, articles of significance which deal with disease conditions, health, growth, and mental welfare, from infancy through adolescence. These abstracts will be prepared by trained bibliographers, mostly physicians.

Issues of the Quarterly Review of Pediatrics will appear in February, May, August, and November. Each number will be thoroughly indexed, and a cumulative index for each volume will be included in the November issue. The "Bookshelf" department will report on all new books the pediatrician should know about, as soon as they are brought to editorial attention.

Dr. Irving J. Wolman, of Philadelphia, is editor in chief of the new journal, which will be published by the Washington Institute of Medicine, 1720 M Street, N. W., Washington 6, D. C.

DR. NALE TRANSFERRED TO NEW YORK

Dr. Thomas W. Nale, medical director at the South Charleston plant of the Carbide and Carbon Chemical Corporation, has been transferred to the New York office of the parent company, Union Carbide and Carbon Corporation, and will assume his new duties there shortly after the first of March.

In New York, Doctor Nale will be associated with Dr. A. G. Cranch, toxicologist for the Union Carbide Company, and in this capacity will serve as consultant in medical and toxicology problems for the medical directors of the various plants owned by the company.

Doctor Nale has been medical director at the South Charleston plant since 1941. Previously, he was connected with the State Health Department at Charleston. No successor has yet been named.

WOMAN'S AUXILIARY TO MEET

The 22nd annual meeting of the Woman's Auxiliary to the West Virginia State Medical Association will be held at the Hotel Governor Cabell in Huntington, May 13-15, 1946, conjointly with the 79th annual meeting of the State Medical Association. Guests and delegates will be registered at the hotel, and all luncheons and meetings will be held there.

Mrs. H. E. Beard, of Huntington, has been named convention chairman by Mrs. A. G. Rutherford, president of the Cabel County auxiliary. Mrs. Ulysses G. McClure, of Charleston, is state president and will preside at all of the business sessions.

INTERESTING PROGRAM AT ANNUAL SECRETARIES-EDITORS CONFERENCE

The annual conference of secretaries of state medical associations and editors of medical journals at Chicago, February 8-9, was of unusual interest, the program including addresses by prominent doctors and laymen from various parts of the country.

The meeting was held in the auditorium of the American Medical Association building and was attended by representatives from forty states. The guests were welcomed by Dr. R. L. Sensenich, chairman of the board of trustees, who stated that the object of the meeting was to discuss problems that concern medicine in America today, and to give those present an opportunity to appraise these various matters.

The status of medical legislation on a national level was discussed by Mr. J. W. Holloway, director of the Bureau of Legal Medicine and Legislation, and Dr. Joseph S. Lawrence, director of the Washington office of the Council on Medical Service and Public Relations. Both tried to impress upon those present the importance of keeping in close touch with representatives in Congress. They urged that the campaign of education to acquaint the public generally with the evils of social legislation proposed in Congress, especially the Truman Health Bill, be continued.

The lack of distribution of medical care in rural districts was cited by Dr. F. S. Crockett, chairman of the Committee on Rural Medical Service, as the cause of much of the agitation in Congress for compulsory health insurance. "If we can show that something is being done to remedy this situation," he said, "then there might be a change of sentiment in Congress." All three speakers predicted that the Hill-Burton Hospital Construction bill, which has been passed by the Senate, will soon be enacted into law.

The part the Veterans Administration is playing in the reconversion program was discussed by Col. James C. Harding, MC, acting director of the outpatient service at Washington. Colonel Harding stated that male veterans may be hospitalized in private hospitals only for service-connected or service-aggravated disabilities but that female veterans may be given treatment for service-connected or non-service disabilities with certain exceptions. Women will be hospitalized only in private hospitals. It is the hope of the Administration that approximately 20,000 patients may be taken care of in private hospitals.

Colonel Harding said that 800,000 treatments were accorded to patients in 1945, and that 500,000 of that number were given to World War I veterans. He said that the Veterans Administration must rely upon the medical profession throughout the country to do this work, as physicians are not available for the purpose in Veterans hospitals.

The principal address on Saturday, February 9, was delivered by Dr. Morris Fishbein, editor of the Journal of the American Medical Association, who discussed present day problems of medicine with particular reference to the part being played by the American Medical Association through its Board of Trustees and Council on Medical Service and Public Relations to provide medical care for all of the people of the United States.

MEASLES IMMUNE SERUM AVAILABLE

The State Health Department has completed arrangements with the American Red Cross for statewide distribution of gamma globulin for use in combatting measles. Distribution will be made without charge through the state hygienic laboratory with the following proviso: "It must be used for measles only; it must be distributed without charge to physicians, hospitals, and clinics in accordance with applicable laws and regulations; and, it must be administered in accordance with established standards and without any charge to the patient for products."

Doctors should request the needed supply of the immune globulin from the local city or county health department. No request should be sent directly to the state hygienic laboratory from any area where there is a full- or part-time health officer.

AWARDED LEGION OF MERIT

Lt. Col. Bert Bradford, Jr., MC, of Charleston, has been awarded the Legion of Merit for exceptionally meritorious conduct in the performance of outstanding service while serving with the army medical corps in the ETO. Doctor Bradford is now engaged in the practice of surgery at Charleston. The citation is as follows:

> "Lieutenant Colonel Bert Bradford, Jr., (Army Serial No. 0-292119), Medical Corps, United States Army, for exceptionally meritorious conduct in the performance of outstanding services, as Chief of Surgical Service, 45th Evacuation Hospital, from 2 August 1944 to 10 May 1945. Lieutenant Colonel Bradford skillfully supervised the work of his section and teams attached to his unit in a manner which insured the highest quality of surgical treatment to wounded men. Particularly noteworthy was his introduction in the hospital of the most recent developments in the treatment of wounds of the hand and vascular injuries. By his demonstration of professional ability, sound judgment and untiring effort, Lieutenant Colonel Brawford contributed greatly to the success of his unit's operation, and his services reflect highest credit upon himself and the armed forces of the United States. Entered military service from West Virginia."

PHC MEETS APRIL 1-3 AT CHARLESTON

A meeting of the Public Health Council will be held at the Daniel Boone Hotel, in Charleston, April 1-3, for the purpose of examining applicants for licensure in West Virginia.

NEW HEALTH OFFICER

Dr. Don V. Hatton, of Williamson, has been appointed by the Public Health Council as full time county health officer for Mingo County. He succeeds Dr. S. G. Zando, who is taking a course in public health at Johns Hopkins University, Baltimore.

RECIPROCITY AMONG SERVICE PLANS AIM OF ASSOCIATED MEDICAL CARE PLANS, INC.

In the following release from the American Medical Association, which includes a restatement of the 14-point program, the full program of the Board of Trustees and the Council on Medical Service with reference to voluntary prepayment service plans is set forth in detail:

The Board of Trustees of the American Medical Association and the Council on Medical Service of the American Medical Association at a meeting just completed in Chicago have taken a long step toward protection of the American people against the costs of sickness through participation in a voluntary prepayment sickness plan now developed under the authority of the American Medical Association.

The fundamental step in the development of this plan was the establishment of standards of acceptance for medical care plans which have the approval of the Council on Medical Service of the American Medical Association. Any plan which meets the standards of the Council will be entitled to display the seal of acceptance of the American Medical Association on its policies and on all of its announcements and promotional material. In order to qualify for acceptance, the prepayment plan must have the approval of the state or county medical society in the area in which it operates. The medical profession in the area must assume responsibility for the medical services included in the benefits. Plans must provide free choice of a qualified doctor of medicine and maintain the personal, confidential relationship between patient and physician. The plans must be organized and operated to provide the greatest possible benefits in medical care to the subscriber.

Medical care plans may be in terms of either cash indemnity or service units, with the understanding that benefits paid in cash are to be used to assist in paying the costs incurred for medical service. The standards also include provisions relative to the actuarial data that are required, systems of accounting, supervision by appropriate state authorities and periodic checking and reporting of the progress of the plan to the Council.

Coincidentally with the announcement of these standards of acceptance, there was organized, as a voluntary federation, an organization known as Associated Medical Care Plans, Inc. This independent association will include as members all plans that meet the minimum standard of the Council on Medical Service of the American Medical Association.

The Associated Medical Care Plans will undertake to establish coordination and reciprocity among all of these plans so as to permit transfer of subscribers from one plan to another and use of the benefits in any state in which a subscriber happens to be located. Under this method, great industrial organizations with plans in various portions of the United States will be able to secure coverage for all of their employees. Moreover, it will be possible for the Veterans Administration and welfare and industrial groups, as well as government agencies, to provide coverage for the people in any given area through a system of national enrollment. In addition, the Associated Medical Care Plans, Inc., will undertake research and the compilation of statistics on medical care, provide consultation and information services based on the records of existing plans, and engage in a great campaign of public education as to the medical service plan movement under the auspices of state and county medical societies.

The Board of Trustees of the American Medical Association also announced the establishment under its Council on Medical Service of a Division of Prepayment Medical Care Plans with a director and a staff who will administer the activities of the Council on Medical Services related to the promotion and development of medical care plans in all of the states.

In announcing its proposals for a nation-wide provision of sickness insurance on a mutual nonprofit basis, the Association, through its President and the Board of Trustees authorizes the publication of its complete health program with the ten points, which include the development of services in the field of preventive medicine, maternal and child health, voluntary prepayment plans for protection against the costs of sickness, compensation for loss of wages due to illness, the care of the veteran and the development of a high standard of housing, nutrition, clothing and recreation.

The American Medical Association last June, through its Board of Trustees and Council on Medical Service announced a 14-point program to improve the health and medical care situation in the United States. In October, 1945, the interpretation of these 14 points and methods of implementation were adopted by the Council on Medical Service. In December, 1945, the House of Delegates approved the whole program, suggested its rearrangement, and directed the Board of Trustees to keep the program constantly up to date so that it will stay at least even with and, if possible, a step ahead of the needs of the public.

With this in mind the Board of Trustees has adopted a restatement of the 14 point program, which clarifies still further the position of the American Medical Association on some of these points and brings into the program more definitely such matters as maternal and child welfare, medical research, the medical care of the veteran and the part to be played by the voluntary health agencies.

This restatement follows:

NATIONAL HEALTH PROGRAM OF THE A. M. A.

1. The American Medical Association urges a minimum standard of nutrition, housing, clothing and recreation as fundamental to good health and as an objective to be achieved in any suitable health program. The responsibility for attainment of this standard should be placed as far as possible on the individual, but the application of community effort, compatible with the maintenance of free enterprise, should be encouraged with governmental aid where needed.

2. The provision of preventive medical services through professionally competent health departments with sufficient staff and equipment to meet community needs

is recognized as essential in a health program. The principle of federal aid through provision of funds or personnel is recognized with the understanding that local areas control their own agencies as has been established in the field of education. Health departments should not assume the care of the sick as a function since administration of medical care under such auspices tends to a deterioration in the quality of the service rendered. Medical care to those unable to provide for themselves is best administered by local and private agencies with the aid of public funds when needed. This program for national health should include the administration of medical care including hospitalization to all those needing it but unable to pay, such medical care to be provided preferably by a physician of the patient's choice with funds provided by local agencies with the assistance of federal funds when necessary.

3. The procedures established by modern medicine for advice to the prospective mother and for adequate care in childbirth should be made available to all at a price that they can afford to pay. When local funds are lacking for the care of those unable to pay, federal aid should be supplied with the funds administered through local or state agencies.

4. The child should have throughout infancy proper attention including scientific nutrition, immunization against preventable disease and other services included in infant welfare. Such services are best supplied by personal contact between the mother and the individual physician but may be provided through child care and infant welfare stations administered under local auspices with support by tax funds whenever the need can be shown.

5. The provision of health and diagnostic centers and hospitals necessary to community needs is an essential of good medical care. Such facilities are preferably supplied by local agencies, including the community, church and trade agencies which have been responsible for the fine development of facilities for medical care in most American communities up to this time. Where such facilities are unavailable and cannot be supplied through local or state agencies, the federal government may aid, preferably under a plan which requires that the need be shown and that the community prove its ability to maintain such institutions once they are established. (Hill-Burton bill.)

6. A program for medical care within the American system of individual initiative and freedom of enterprise includes the establishment of voluntary nonprofit prepayment plans for the costs of hospitalization (such as the Blue Cross plans) and voluntary nonprofit prepayment plans for medical care (such as those developed by many states and county medical societies). The principles of such insurance contracts should be acceptable to the Council of Medical Service of the American Medical Association and to the authoritative bodies of state medical associations. The evolution of voluntary prepayment insurance against the costs of sickness admits also the utilization of private sickness insurance plans which comply with state regulatory statutes and meet the standards of the Council on Medical Service of the American Medical Association.

7. A program for national health should include the administration of medical care, including hospitalization, to all veterans, such medical care to be provided preferably by a physician of the veteran's choice with payment by the Veterans Administration through a plan mutually agreed on between the state medical association and the Veterans Administration.

8. Research for the advancement of medical science is fundamental in any national health program. The inclusion of medical research in a National Science Foundation, such as proposed in pending federal legislation, is endorsed.

9. The services rendered by volunteer philanthropic health agencies such as the American Cancer Society, the National Tuberculosis Association, the National Foundation for Infantile Paralysis Inc., and by philanthropic agencies such as the Commonwealth Fund and the Rockefeller Foundation, and similar bodies have been of vast benefit to the American people and are a natural outgrowth of the system of free enterprise and democracy that prevail in the United States. Their participation in a national health program should be encouraged and the growth of such agencies when properly administered should be commended.

10. Fundamental to the promotion of the public health and alleviation of illness are widespread education in the field of health and the widest possible dissemination of information regarding the prevention of disease and its treatment by authoritative agencies. Health education should be considered a necessary function of all departments of public health, medical associations and school authorities.

RELOCATIONS

Dr. Richard V. Shanklin, who has been engaged in industrial practice at Gary for several years, has moved to Bluefield.

* * *

Dr. M. E. Becker, Jr., formerly of Morgantown, has relocated at Orange, Texas.

* * *

Dr. D. C. Peters, of Richwood, has moved to Toledo, Ohio and has located at 2581 Foreacre Avenue.

* * *

Dr. F. V. Gamage, of Bluefield, has moved to Grundy, Virginia.

* * *

Dr. Owen Poling, formerly of Eskdale, is now located at Mason.

* * *

Dr. W. J. Judy, of Parkersburg, has moved to Salisbury, North Carolina.

* * *

Dr. Ward L. Oliver, who has served for several months as Monongalia County health director on loan from the U. S. Public Health Service, has resigned to resume civilian practice at Cobleskill, New York. Doctor Oliver was formerly health officer for District No. 3, with headquarters at Pt. Pleasant.

NPC CONFERENCE AT ST. LOUIS

At a conference of representatives of State Medical Associations, held at St. Louis, January 18-19, the Truman Health Bill and other social legislation was discussed from every angle and plans mapped for the part medicine will play in the event any of the major bills reach the stage where hearings are called by House or Senate committees.

Two doctor representatives were present from every state except three, and the conference lasted the full two days. The West Virginia State Medical Association was represented by Dr. Ray M. Bobbitt, of Huntington, and Dr. D. A. MacGregor, of Wheeling, both of whom are thoroughly familiar with the work that is being done in West Virginia to provide medical care for all of the people regardless of economic status. The speakers stressed the great dangers that would confront medicine if the Truman bill should be enacted into law.

It is probable that a full report of the meeting will be presented by Doctor Bobbitt and Dr. MacGregor at regular or called meetings of component societies throughout the state.

P. AND A. NEARS CLOSE

Directives received recently by Dr. Robert K. Buford, of Charleston, State Chairman of the Procurement and Assignment Service, which has functioned throughout the war in all matters pertaining to the commissioning of doctors for active service in the Army and Navy, indicate that the work of the Central Office at Washington, as well as that of state and county committees, is about completed. Besides handling deferments, the state and county committees have since V-J Day handled applications for release from military service.

It is expected that by April 1, 1946, all commissioned residents now serving in civilian hospitals will have been called to active duty. By that time, all Procurement and Assignment intern and resident quotas will have been lifted. Effective April 1, hospital officials will contact the Surgeons General directly in all matters relating to deferments.

Doctor Buford has been notified that, according to present plans, the reconversion of the 9-9-9 program and the disposition of pending requests for urgent medical care can be accomplished by April 1. No new program will be undertaken.

State offices of the Procurement and Assignment Service will be closed as work is completed, and it is expected that all offices will be closed by June 30, 1946.

VISIBLE REGISTERS IN TB CONTROL

The Bureau of Tuberculosis of the State Health Department has set up a register of all active cases reported to supplant its former records, which consisted of one set of files containing both active and inactive cases.

At the time the original tuberculosis file was divided into active and inactive cases, the inactive case-cards were placed in a closed file, the active ones being placed on the register, furnishing the initial points at which some measure of control would be directed. At the cessation of tuberculosis activity, case-cards will be removed from the working register and placed in the closed or inactive files. And, correspondingly, when reactivation is manifest, the case-card will be again placed on the register.

Cognizant that record control on a state level is in itself not sufficient, the Bureau has recommended that local health departments adopt for their use a simple pocket-visible tuberculosis control register.

Visible registers have already been set up in 17 counties, and it is is expected that by July 1 registers will have been installed in every local health department. The West Virginia Tuberculosis and Health Association plans to maintain registers for counties having no active health services until local personnel can be found to assume that responsibility.

A reciprocal plan for interchange of information between local and state offices has been introduced. It is important that a report be made to the bureau of tuberculosis on every active case at six months intervals. As soon as the county and state registers are operating efficiently, the bureau will be equipped to do cumulative analyses for any one county or for the state as a whole.

DOCTORS LICENSED BY PHC

As the result of the examination conducted by the Public Health Council, at Charleston, January 7-9, 1946, thirty doctors have been licensed to practice medicine in West Virginia.

Those licensed by examination were: Joel Foster Carr, Princeton; Robert Carl Lincicome, Parkersburg; Elizabeth Sarah Linson, Charles Town; Frederick Allen Scott, Williamson; and, Orin Ross Yost, Aiken, S. C.

The following doctors were licensed by reciprocity: Harry Brutus Anderson, Mount Hope; Raymond Murray Cunningham, Bluefield; Horace Milton Dalton, Logan; Del Roy Richard Davis, Kingwood; Edward Thomas Dunn, Jr., South Charleston; Elmer Abraham Gearhart, South Charleston; Milford Leroy Hobbs, Fairmont; Marion Fisher Jarrett, Charleston.

Paul Archibald Jones, Huntington; John Henry Kilmer, Martinsburg; William Thomas Lawson, Fairmont; Oldrick Daniel MacCallum, Charleston; Caesar Lawrence Marshall, Bluefield; John Osborne McNeel, Millpoint; Clarence Rickett Messer, Huntington; Richard Carroll Neale, Bluefield; George Osborne Nelson, Jr., Nitro.

Maynard Prince Pride, Morgantown; William Frederick Richmond, Beckley; William Byron Rossman, Charleston; Glendy Graham Sadler, Philippi; James Everett Sanner, Philippi; Herman Seltz, Elkins; Harold Walter Ulch, Parkersburg; and, Horace Rudolph Wilber Vial, Charleston.

JOE SAVAGE NF EXECUTIVE DIRECTOR

Major Joe W. Savage, former executive secretary of the West Virginia State Medical Association, who has been attached to the headquarters offices of the National Foundation for Infantile Paralysis, in New York City, since November, 1945, has been appointed executive director of the foundation by Basil O'Connor, the president. The appointment was announced at a Red Cross meeting at Charleston, in January, and was released formally to the press on February 13.

Major Savage was recently released from the army air force, after serving for over three years. At the time of his discharge from the service, he was serving as director of military training at San Marcos Army Air Field, San Marcos, Texas. Major Savage has been interested in the work of the Foundation since 1941 at which time, at the request of Basil O'Connor, he made a national survey of the organization's county chapters over the country. He is also a veteran of World War I, in which he served overseas as a pursuit pilot. He served as executive secretary of the State Medical Association from 1928 until he reported for active duty in the air force in May, 1942.

Major Savage will be located permanently in New York City, and will move his family there from Charleston late in the spring.

PHA TO MEET AT CLEVELAND

The 74th annual meeting of the Public Health Association will be held at Cleveland, Ohio, the week of November 11, 1946. An attendance of four thousand is anticipated.

Doctors in the Service

Major Joseph T. Mallamo, who was recently discharged from military service, has resumed civilian practice, with offices at 325 Adams Street, in Fairmont.

* * *

Major V. L. Peterson, who was recently stationed at Wakeman General Hospital, Camp Atterbury, has been released from military service and resumed the practice of his specialty, radiology, in the Medical Arts Building.

* * *

Capt. C. L. Houck, of Carbon, who served many months in the army medical corps in India, and who was recently released from military service, has resumed industrial practice with his brother, Dr. M. L. Houck, in his home community.

* * *

Lt. Comdr. W. B. Scherr, of Morgantown, has been released from the Navy and resumed practice in that city.

* * *

Comdr. John O. Rankin has returned to civilian practice at Wheeling, and resumed the practice of his specialty, orthopedic surgery, at the Wheeling Clinic.

* * *

Capt. O. D. Ballard has resumed civilian practice at Van, after over three years' service with our armed forces.

* * *

Major Henry M. Escue, of Charleston, was recently released from military service and is now taking special work at hospitals and clinics in the Boston area.

* * *

Capt. John P. Brick, who has been released from military service, was reported in the February issue of The Journal as having opened offices at 714 Hall Street. This is his home address, and Doctor Brick has not yet formally opened offices for the practice of his profession.

* * *

Major Edward L. Justice has resumed civilian practice at Hollidays Cove, after serving for several years in the army medical corps.

* * *

Comdr. A. J. Weaver (MC), USNR, of Clarksburg, who has been on active duty since April 1942, is now located at the National Naval Medical Center, Bethesda, Maryland, where he is connected with the surgical service. He spent fifteen months at the Naval Dispensary, Washington, D. C., and two years with the Fourth Marine Division, taking part in the conquest of the Marshall Islands, Saipan, Tinian, and Iwo Jima. He holds the presidential unit citation with two stars, Pacific theatre ribbon with three stars, and the Bronze Star Medal. Prior to his entrance into military service he was associated in the practice of surgery with Dr. H. H. Haynes, at Clarksburg.

Major James C. Laslie, formerly connected with the Charleston General Hospital, and who served for three years as acting medical director for the Workmen's Compensation Commission, was recently released from military service and has located for the practice of his profession at Montgomery, Alabama.

* * *

Lt. Comdr. Louis E. Kroger, formerly of Parkersburg, has been released from service with the Navy and is now associated in the practice of Dermatology with Dr. D. J. Kindel in the Union Central Life Building, at Cincinnati.

* * *

Lt. Comdr. James E. Fisher, of New Cumberland, has been released from service with the Navy, and will soon resume the practice of his specialty of E. E. N. & T. at Hollidays Cove. Doctor Fisher was recently assigned to the Amphibious Training Base, Ft. Pierce, Florida.

* * *

Capt. Charles M. Polan, of Huntington, has been transferred from Newton D. Baker General Hospital, at Martinsburg, to Ashford General Hospital, at White Sulphur Springs, where he is in charge of eye service.

* * *

Lt. Comdr. Jack Basman (MC), USNR, who was recently released from the service, and who now has offices in the Medical Arts Building, in Charleston, has been awarded the Commendation Ribbon by James Forrestal, Secretary of the Navy. The citation is as follows:

> "For outstanding performance of duty as Research Scientist, Research Division, Bureau of Medicine and Surgery. Through diligent and exhaustive research, Lieutenant Commander Basman proved the toxicity of screening smokes, which had been used extensively in military maneuvers for the past several years with resulting casualties and deaths. As a result of his tireless efforts, the use of toxic smokes in maneuvers were discontinued, thereby preventing the loss of many lives. Lieutenant Commander Basman's professional ability and devotion to the fulfillment of an important assignment were in keeping with the highest traditions of the United States Naval Service."

* * *

Capt. Carl B. Hall, who was recently released after forty months' service in the army medical corps, will engage in general practice in Charleston. He has offices at 1601 W. Washington Street. Doctor Hall was formerly located at Red Jacket.

* * *

Dr. Pat A. Tuckwiller, of Charleston, is on terminal leave from the army medical corps. He was just recently promoted from the rank of Lt. Col. to Colonel, and is now taking postgraduate work in cardiology and electro-cardiology offered by the American College of Physicians in Philadelphia and at Massachusetts General Hospital, in Boston. When he completes this work, he will resume civilian practice in Charleston.

* * *

Capt. F. C. Reel, who was recently released from military service, has resumed the practice of his specialty of E. E. N. & T. and has offices with Dr. O. H. Bobbitt in the Medical Arts Building, at Charleston.

BACK HOME

The following West Virginia doctors have been reported to the headquarters office of the West Virginia Medical Association as having been released from military service since the February issue of the West Virginia Medical Journal went to press:

ARMY

Ballard, Capt. O. D., Van
Beard, Major Harry E., Huntington
Connolly, Capt. Randall, Parkersburg
Escue, Major Henry M., Charleston
Frye, Capt. Robert R., Huntington
Gearhart, Capt. Elmer A., Charleston
Grove, Lt. Col. Thomas L., Huntington
Hancock, Major Henry H., Union
Justice, Major Edward L., Hollidays Cove
Laslie, Major James C., Charleston
Lincicome, Capt. Robert C., Parkersburg
Mallamo, Major Joseph T., Fairmont
Peterson, Major V. L., Charleston
Polsue, Capt. Wm. C., Charleston
Reel, Capt. Frederick C., Charleston
Starcher, Lt. Col. E. H., Earling
Tuckwiller, Col. Pat A., Charleston
Woofter, Major A. C., USPHS

NAVY

Fisher, Lt. Comdr. James E., New Cumberland
Fugate, Lt. Comdr. R. C., Bluefield
Kroger, Lt. Comdr. Louis E., Parkersburg
Osterman, Comdr. A. L., Wheeling
Rankin, Comdr. John O., Wheeling
Scherr, Lt. Comdr. W. B., Morgantown
Villani, Lt. Comdr. A. J., Welch

Capt. Elmer A. Gearhart, of South Charleston, who has been in the army medical corps since 1942, has accepted an appointment as a resident at Charleston General Hospital.

* * *

Lt. Comdr. A. J. Villani has been released from military service and is on the staff at Stevens Clinic Hospital, at Welch.

* * *

Major A. C. Woofter (MC) USPHS, who has been stationed at Des Moines, Iowa, for several months, has been released from the service and resumed practice in his home city at Parkersburg. While at Des Moines, Doctor Woofter passed the examination of the American Board of Internal Medicine.

* * *

Capt. Russel Kessel, USNR, and Major Ray Kessel, of Charleston, have resumed civilian practice in their home city. Both were released from military service. Dr. Russel Kessel has offices in the Medical Arts Building, and Dr. Ray Kessel is located in the Kanawha Banking & Trust Building.

* * *

Dr. S. S. Bobes, of Wheeling, who has been on terminal leave from the army medical corps, has been promoted from the rank of Lt. Col. to Colonel.

* * *

Major William L. Cooke, of Charleston, has resumed the practice of his specialty of surgery with offices at 404 Brooks Street.

Major James Ralston, of Clarksburg, who has returned to civilian practice and opened offices at 208 Prunty Building in that city, has been promoted to the rank of Lt. Col.

* * *

Lt. Comdr. R. C. Fugate, USNR, of Bluefield, has resumed practice in that city and is associated with Dr. John McGuire. He was recently released from the Navy after serving 37 month.

* * *

Capt. Julian Kaufman, who has had forty-two months' service in the army medical corps, is assigned to the A. S. F. Regional Hospital, at Ft. Jackson, Columbia, South Carolina.

* * *

Comdr. V. T. Churchman, Jr., who was recently released from service with the Navy, has located permanently for the practice of his specialty of E. E. N. & T., at 432 Medical Arts Building, in Charleston.

* * *

Lt. Col. Lewell S. King, has been released from military service and has resumed practice as a member of the staff at the Myers Clinic, in Philippi.

* * *

Capt. Herbert N. Shanes has been released from military service and has located for the practice of his profession at Coalwood. He was formerly located at Caretta.

* * *

Capt. Joseph Gilman, of Clarksburg, who served with the army medical corps since October 1942, has been released from the service and has opened offices in the Empire Bank Building, at Clarksburg.

* * *

Major Edward H. Holmes, who has served with our armed forces since February 1941, has been released and opened offices at 717½ Market Street, in Parkersburg.

* * *

Comdr. James D. Bird is on terminal leave from the army, and has opened offices at 412 Central Union Building in Wheeling. He has been in active service since November 28, 1940.

* * *

Capt. Clarence H. Boso, of Huntington, has been released from military service and has offices at 421½ Eleventh Street, in Huntington.

SPECIAL SESSION OF LEGISLATURE

A special session of the legislature will be called by Governor Clarence W. Meadows for March 18. Besides educational bills, the legislature will consider the enactment of enabling legislation for medical-surgical-hospital service plans in operation in this state.

A pre-session meeting of the interim committee and advisory committee, studying health problems, will be held in the House of Delegates at the Capitol on March 4.

ANNUAL AUDIT

The annual audit of receipts and disbursements of the West Virginia State Medical Association for the calendar year 1945 has been completed by Norman S. Fitzhugh, Certified Public Accountant, and submitted to the treasurer, Dr. T. M. Barber, of Charleston. The complete audit follows:

Dr. T. M. Barber, Treasurer
West Virginia State Medical Association
Charleston, West Virginia

I have audited the receipts and disbursements of the West Virginia State Medical Association for the calendar year ended December 31, 1945, and am submitting herewith statements covering the various funds for the year under review.

All receipts of record and all disbursements were verified and the cash balances were reconciled with statements of the depository banks. Sufficient tests were made to satisfy me that all receipts had been recorded. Cancelled checks evidencing all disbursements were on hand except for two December checks totaling $20.48 which had not cleared the bank at December 31, 1945.

I therefore certify that, in my opinion, all receipts in the year under review have been properly accounted for and all receipts and disbursements are correctly stated on the books and in the statements attached hereto. I further certify that the balance in bank at the close of business on December 31, 1945 amounted to $13,508.44.

A statement of cash follows:

Balance December 31, 1944	$11,237.40
Receipts—1945	24,892.63
	36,130.03
Disbursements—1945	22,621.59
Balance December 31, 1945	$13,508.44

The cash balance at December 31, 1945 is attributable to the various fund accounts as follows:

General Fund	$ 3,844.53
Medical Journal Fund	9,663.91
Total All Funds	$13,508.44

Transfers from the General Fund and the Medical Journal Fund to eliminate the deficits in the various other fund accounts were made as of December 31, 1945. These other fund accounts have been closed on the books of the Association and will not be used except when and if needed and will then be used only as long as they serve the specific purpose for which they were created.

United States Treasury Registered 2% Bonds having a face value of $22,000.00 were inspected by us in your safety deposit box on January 16, 1946.

The Fidelity Investment Association annuity contract remained unchanged during 1945. 85% of the cash surrender value of the policy had been received by January 1, 1945, leaving a balance of cost unrecovered amounting to only $55.80.

The savings account was closed into the checking account during the year, there being a balance of only $128.02 at the time of transfer.

A comparative statement of assets at December 31, 1944 and December 31, 1945 is as follows:

	Dec. 31, 1944	Dec. 31, 1945	Increase (Decrease)
Cash in Bank	$11,237.40	$13,508.44	$ 2,271.04
2% U. S. Treasury Bonds, Face Value $22,000.00	22,101.53	22,101.53	.....
Annuity Contract—Balance Cost Unrecovered	55.80	55.80	.....
Totals	$33,394.73	$35,665.77	$ 2,271.04

NORMAN S. FITZHUGH,
Certified Public Accountant.

Charleston, W. Va.
January 21, 1946

WEST VIRGINIA STATE MEDICAL ASSOCIATION
COMBINED STATEMENT OF RECEIPTS AND DISBURSEMENTS
CALENDAR YEAR 1945

BALANCE JANUARY 1, 1945		$11,237.40
RECEIPTS		
Dues (Net)	$ 9,085.00	
Special Assessments	4,537.50	
Insurance Refund	15.60	
Dividend on Insurance	3.60	
Interest on U. S. Bonds	447.65	
Interest on Savings	.64	
Advertising	10,746.14	
Emblems Sold	4.00	
Subscriptions to Journal	52.50	
Total Receipts		24,892.63
		$36,130.03
DISBURSEMENTS		
General Fund	$13,225.90	
Medical Journal Fund	8,720.85	
Convention Fund	674.84	
Total Disbursements		22,621.59
BALANCE DECEMBER 31, 1945		$13,508.44

WEST VIRGINIA STATE MEDICAL ASSOCIATION
GENERAL FUND
STATEMENT OF RECEIPTS AND DISBURSEMENTS
CALENDAR YEAR 1945

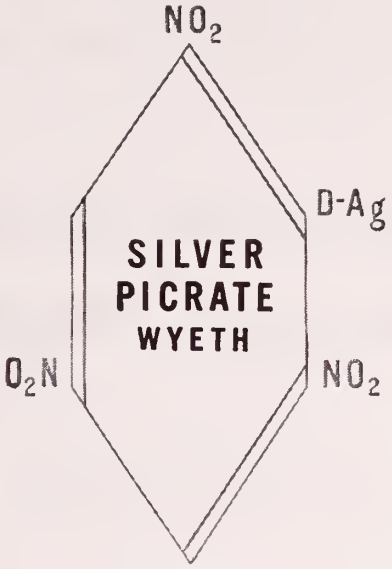
BALANCE JANUARY 1, 1945			$ 4,148.27
RECEIPTS			
Dues	$9,105.00		
Less: Refunds	20.00	$9,085.00	
Special Assessments		4,537.50	
Interest on Savings Account		.64	
Interest on U. S. Bonds		447.65	
Refund of Insurance		15.60	
Dividend on Insurance		3.60	
Total Receipts			14,089.99
			$18,238.26
DISBURSEMENTS			
Salary—Executive Secretary (Less Payroll Taxes)		$ 5,200.80	
Office Salaries (Less Payroll Taxes)		1,496.90	
Office Supplies and Expense		519.40	
Office and Library Rent		825.00	
Telephone and Telegraph		480.66	
Postage		399.55	
Traveling Expense		1,280.83	
Miscellaneous		1,354.86	
Social Security Taxes		107.00	
Withholding Taxes		1,560.90	
Transfer—Medical Defense Fund		1,167.83	
Total Disbursements			14,393.73
BALANCE DECEMBER 31, 1945			$ 3,844.53

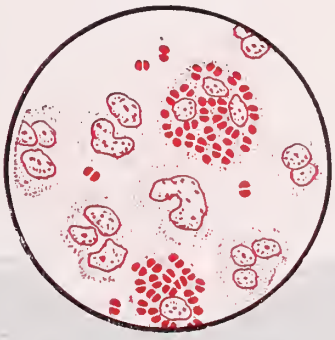
WEST VIRGINIA STATE MEDICAL ASSOCIATION
MEDICAL JOURNAL FUND
STATEMENT OF RECEIPTS AND DISBURSEMENTS
CALENDAR YEAR 1945

BALANCE JANUARY 1, 1945		$16,109.02
RECEIPTS		
Advertising	$10,746.14	
Subscriptions to Journal	52.50	
Emblems Sold	4.00	
Total Receipts		10,802.64
		$26,911.66

PICRAGOL

TRADE-MARK





PICRAGOL is an effective agent in the treatment of urethritis and vaginitis. Its specific action is especially valuable for the control of trichomoniasis or moniliasis of the vagina and for trichomonas infections of Bartholin's or Skene's glands.

PICRAGOL CRYSTALS, Bottles of 2 grams. • COMPOUND PICRAGOL POWDER, Silver Picrate Wyeth, 1 per cent, in a kaolin base. Packages of six 5 gram vials. • VAGINAL SUPPOSITORIES PICRAGOL, Silver Picrate Wyeth, 0.13 grams, in a boroglyceride-gelatin base. Packages of 12 • VAGINAL SUPPOSITORIES PICRAGOL, *for infants*, Silver Picrate Wyeth, 65 mg., in a boroglyceride-gelatin base. Packages of 12.

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HENRY R. GLASS, M. D.
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CHAS. C. WARNER,
Superintendent.

•

MOUNTAIN STATE HOSPITAL
MEMORIAL CANCER CLINIC

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AMERICAN COLLEGE OF SURGEONS

J. ROSS HUNTER, M. D., F. A. C. S.
Director

DISBURSEMENTS		
Printing	$ 6,189.46	
Engraving	201.56	
Postage	139.00	
Miscellaneous	390.83	
Salaries	1,800.00	
Transfers to Other Funds	8,526.90	
Total Disbursements		17,247.75
BALANCE DECEMBER 31, 1945		$ 9,663.91

WEST VIRGINIA STATE MEDICAL ASSOCIATION
INDIGENT FUND
STATEMENT OF RECEIPTS AND DISBURSEMENTS
CALENDAR YEAR 1945

BALANCE JANUARY 1, 1945	($2,452.13)
Transferred from Journal Fund to Eliminate Deficit	2,452.13
BALANCE DECEMBER 31, 1945	NONE

WEST VIRGINIA STATE MEDICAL ASSOCIATION
MEDICAL DEFENSE FUND
STATEMENT OF RECEIPTS AND DISBURSEMENTS
CALENDAR YEAR 1945

BALANCE JANUARY 1, 1945	($1,167.83)
Transferred from General Fund to Eliminate Deficit	1,167.83
BALANCE DECEMBER 31, 1945	NONE

WEST VIRGINIA STATE MEDICAL ASSOCIATION
CONVENTION FUND
STATEMENT OF RECEIPTS AND DISBURSEMENTS
CALENDAR YEAR 1945

BALANCE JANUARY 1, 1945		($1,206.04)
DISBURSEMENTS		
Supplies and Labor	$ 14.70	
Travel	49.28	
Reporting	90.86	
Refund Convention Space	520.00	
Total Disbursements		674.84
		(1,880.88)
Transferred from Journal Fund To Eliminate Deficit		1,880.88
BALANCE DECEMBER 31, 1945		NONE

WEST VIRGINIA STATE MEDICAL ASSOCIATION
NICHOLSON PROPERTY ACCOUNT
STATEMENT OF RECEIPTS AND DISBURSEMENTS
CALENDAR YEAR 1945

BALANCE JANUARY 1, 1945	($4,193.89)
Transferred from Journal Fund to Eliminate Deficit	4,193.89
BALANCE DECEMBER 31, 1945	NONE

MENTAL HYGIENE OF OLD AGE

An old person still wants to feel that his personality, conduct, etc., merit the recognition of others. We have to find activities which will give such recognition.

No one can have good mental health without reasonable self-esteem. In most individuals this comes from achievement in work or play; the older person's self-esteem comes largely from his past achievements. Many individuals "go to pieces" soon after they retire because the work which gave a sense of achievement and a sense of worth has been taken away from them. Such deprivation is almost comparable to a deprivation of food.—S. R. Laycock, M. D., in Can. Med. Assn. J.

THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII APRIL, 1946 No. 4

OBSERVATIONS ON THE REHABILITATION OF MOVEMENT IN CEREBRAL PALSY PROBLEMS*

By TEMPLE FAY, M. D., F. A. C. S.**
Philadelphia, Pennsylvania

The term "cerebral palsy" has been selected by Phelps[1] to designate those patients who have suffered paralysis early in life due to injury, disease, or congenital defect of the areas of the brain which affect motor control.

The majority of cerebral palsy patients present spasticity to some degree along with their paralysis, and this has led many to refer to them as "cerebral spastics." However, a flaccid type of paralysis also is known to arise from certain cortical lesions, as well as dyskinesia, dystonia, and mental retardation, so that the designation of "spastic" is not sufficient to include all of the types found in the cerebral palsy group.

No clear-cut line of clinical classification yet has been established for these cases, nor is it possible to distinguish by practical tests or external examination, those defects arising in the brain prior to birth, and those due to events surrounding the mechanism of delivery (unless specific history is given), from the early infant post-traumatic episodes and diseases.

The growing popularity of the term "cerebral palsy" indicates that it will become widely adopted, in order to distinguish the intracranial problems of paralysis from those related to the spinal cord and its roots.

"Cerebral palsy" literally means "paralysis of the cerebrum." The cerebrum is that portion of the brain comprising the two large hemispheres in contradistinction to the crus, the midbrain, the cerebellum, the pons, and the medulla. "Paralysis of the hemispheres," therefore, would include many additional losses of function besides movement, (i. e., sensation, sight, memory, hearing of words, speech, etc.) and, of course, "consciousness" as well.

No neurological textbook at the present time indexes the term "cerebral palsy." Nevertheless, these clinics grow apace throughout the country (due largely to the efforts of Dr. Winthrop Phelps), and children with all types of paralysis move through them for diagnosis, treatment and relief.

There is, therefore, a great need today for the better orientation of the organic neurologist to the needs of the orthopedic clinics and the community service groups who are attempting to solve this problem. As the primary lesion involves the brain and nervous system, neurological examinations and studies leading to a correct classification and diagnosis are of utmost importance, if full and comprehensive treatment is to be given to these patients.

It is obvious that injury to the brain cortex will produce a type of cerebral palsy that is entirely different from that found in lesions of the midbrain, or of the medulla. Involvement of voluntary and involuntary levels, tone and coördination factors, varied by intellectual defects or handicaps will give rise to

*Presented before the Kanawha Medical Society, Charleston, West Virginia, November 13, 1945.

**Director of the Neuro-Physical Rehabilitation Clinic, Chestnut Hill, Philadelphia.

[1]Phelps, Winthrop M.: Clinics, 11:990. Philadelphia, J. B. Lippincott Company.

many types, alter symptoms, and yield varied results from stereotyped treatment.

Each patient requires careful, individual study, to determine the best course of action to obtain the utmost from rehabilitative treatment. Three general aspects of cerebral palsy should comprise the physical survey and examinations in each instance:

1—*The Organic Neurological Status.* This should include (a) routine neurological examinations, (b) eyeground examination, (c) spinal fluid *pressure** and *volume*** determinations, (d) spinal fluid Wassermann, chlorides and colloidal gold, (e) pneumo-encephalography, (f) electro-encephalography, if convulsive status is present, (g) chart of location, type, and degree of brain involvement (from encephalograms), and (h) neurological diagnosis, prognosis and recommendations (these can be made from the above studies).

2—*The Orthopedic Examination and Structural Survey.* This should include analysis of muscle, bone, and joint defects and handicaps, with correctional measures required for trunk and extremities. (a) Type of muscle involvement and correction required, whether operative, physiotherapeutic, or supportive-correctional. Retraining of muscle movements and progression patterns so as to enhance rehabilitation and activity, (b) measurement of muscles, joint and tendon responses, (c) electrical reactions, (d) x-rays for structural changes, (e) metabolic and general studies, (f) diet and vitamin requirements, (g) type of surgery or muscle retraining necessary, and (h) orthopedic diagnosis, prognosis, and plan of treatment to be followed.

3—*The Mental Status and Activity.* This should include observations to rule out the true microcephalic, Mongolian, and amaurotic idiocy from the retarded, aphasic, and mental defective or handicapped, so-called feeble-minded types. The eyegrounds, the spinal pressure, serology, and pneumoencephalographic findings in the organic neurological examination will be of great help here, assisting to establish the degree and character of function remaining in the areas of grossly normal appearing brain, so that appropriate tests may be carried out to determine response to (a) words, (b) music, (c) memory, (d) tests for I. Q., (e) speech, and (f) behavior and aptitude.

As rehabilitation is "the restoration of health and efficiency," it is of utmost importance that all three of the foregoing surveys be carefully carried out, otherwise hours of valuable time may be lost attempting to retain or alter a handicap which a more careful study would have indicated could not have been changed in the least from the very start, or on the other hand, a most constructive line of training might at once be adopted to the great advantage of the child.

I can cite such an instance where many months were wasted by efforts on the part of parent and teacher to bring forth speech responses. The child had a mild, right, spastic hemiparesis, which led to a diagnosis of a definite brain defect on the left. Attempts to transfer function to the left hand (right hemisphere) were of no avail. Eventually, pneumoencephalography showed that the brain lesion was bi-lateral. The right hemisphere in the Broca speech area had suffered shrinkage even more than its fellow on the left (associated with hand and arm symptoms of the contralateral upper extremity). There was, however, good volume remaining in the left temporal lobe, whereas the right temporal lobe showed loss of volume due to enlargement of the ventricle.

With this gross evidence of less brain involvement of the left hemisphere as compared with the right, the efforts were shifted back to developing the right-handed possibilities of the child and this was reinforced by word-song-music routine (temporal lobe value). Satisfactory progress of sound and speech responses ensued. Much time and expense could have been saved had a full examination originally disclosed the character of the brain involvement and the relatively satisfactory condition of the remaining brain areas.

Irrespective of the problems that lie ahead in rationalizing the new term, in classifying and diagnosing these various types of paralysis and finally establishing appropriate methods of treatment, there is the immediate need for training and rehabilitating this cerebral palsy group, correcting the orthopedic deformities, and establishing better patterns of motor expression.

Systematic physiotherapy and correctional orthopedic treatment have done much to help the spastic group, but it has distinct limitations in so far as final

*Normal spinal pressure (child in horizontal position and quiet) 6-8 mm. Hg. (water = 80-100 mm. plus capillarity of tube.)

**Volume displacement is the amount of spinal fluid that will flow freely until pressure reaches zero and flow practically ceases. Normal volume (horizontal position, child quiet) 10-15 cc. Greater amounts indicate potential blood volume replacement and hence subnormal circulatory efficiency to the brain.

coördinated movements are concerned. Tendon lengthening, fixation of joints, support and correction by braces, as well as training in efforts at progressive relaxation are well known to the profession at large, and need not be discussed here.

I would like to present, however, an additional technique of training for certain cerebral palsy types that we have found simple to carry out and of real value in the development of *progressive patterns of movement.*

Where injury has occurred to the surface of the brain near the vertex, as we see in Little's disease (spastic diplegia), the marked alteration in tone and loss of voluntary activity renders the lower extremities almost useless. The problem here is not alone correction of the spastic deformity, so that the feet and legs can assume the walking position, but also the need to develop the neurological patterns of coördinated movement of the muscles so as to make the orthopedic corrections useful in the life of the patient. There are, we know, very definite motor levels of response in the cord, the medulla, and the midbrain far below the point of injury, which, if they might be allowed freedom of action or adequate development, could bring forth movement at least to the level of their respective reflex possibilities, which as we note in certain *decerebrate* responses such as those described by Magnus and de Kleijn[2] may be quite complicated and involve coördinated movement of the extremities.

Anyone who has observed the extraordinary variety of movement in the spinal reflexes of the chicken after cutting off the head, will realize the potential motor responses that exist beyond the brain level of control and why it may be a most important concept to reach down into the simple reflex of response, in cases that appear almost totally paralyzed from the standpoint of voluntary movement, to obtain, if possible, some activities that are not disturbed by the injury sustained at higher levels.

The nervous system represents a series of evolutionary levels of functional development. When higher centers are out of control, the simple patterns of movement seen in early infancy must be learned well before attempting the more complex patterns of crawling and walking.

We have placed much emphasis on a pattern which Miss Constance Cook, in charge of physiotherapy, has chosen to call the "fish-crawl" because it represents the movements most common to the amphibians.

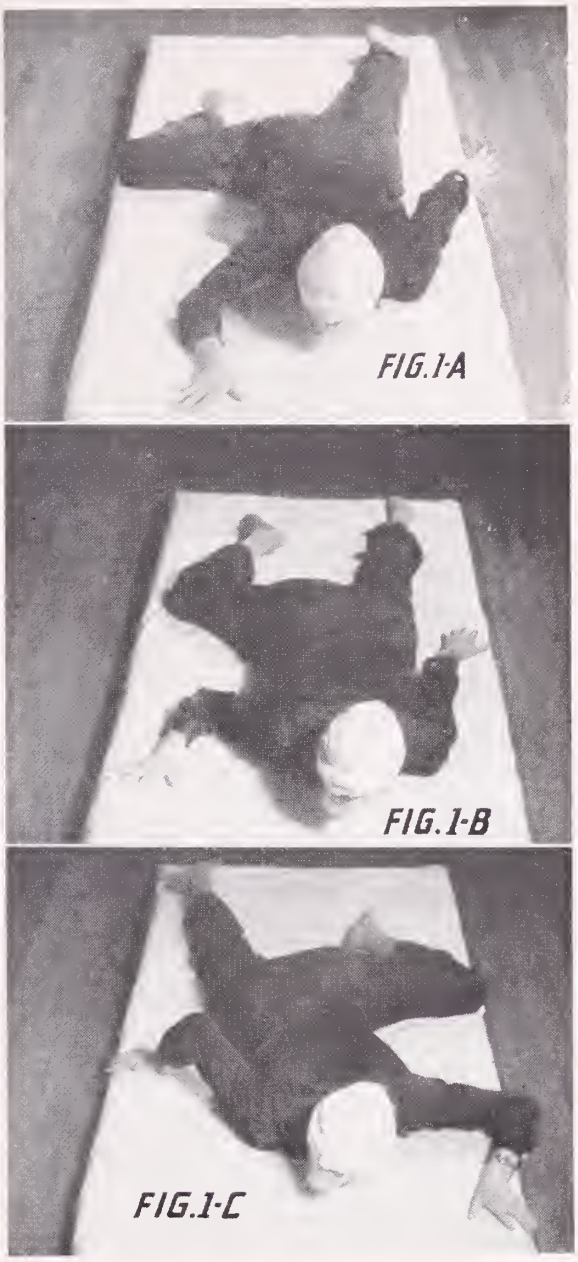

Fig. 1. Proper position for amphibious pattern movement known as the "fish crawl."
(a) Thumb extended and directed toward midline ready for full outward and downward sweep of extremity.
(b) Mid-stage phase. Note hip position.
(c) Left side preparing to begin its cycle. Note head and neck rotation and change in hip position.

The patient is placed on the abdomen (fig. 1-a) and the arm and leg of the same side (homolateral pattern) are drawn up together, flexed, and made ready to extend in a sweeping movement out to the side ("alligator crawl"), meanwhile, the opposite

[2]Magnus and de Kleijn, Arch. f. d. ges. Physiologie, 1912, 455.

arm and leg are extended (having finished their act, fig. 1-b). Alternating extension and flexation of the extremities are begun in a swimming-crawling fashion. The head should take on an alternating movement, face-chin to the side being extended (fig. 1-c), and occiput toward the side about to be flexed.

A blanket placed on a polished floor offers easy practice for this exercise outside of the pool. After this first pattern is thoroughly mastered, then a "crossed pattern" may be developed, so that the arm on one side and the leg on the other (contralateral crossed pattern) are flexed while the remaining extremities are extended. This exercise develops a remarkable degree of hip movement that later aids greatly in smooth coördination of walking gait.

This simple amphibian pattern is characteristic of the normal infant when placed on the abdomen in shallow water. If the child with a cerebral palsy or athetosis is made to keep a regular even rhythm of alternate movement, using a drum or other time cadence, a "pattern" will develop which will soon replace the uncertain, jerky, incoördinate movements with smooth, serial responses that take on the character of true progression, and tend toward crawling (early motor pattern revival).

The following conditions must be observed in order to obtain satisfactory progress in such "pattern movements":

1—The patient must be flat on the abdomen, chin down and forward.

2—The Thumb must be *extended*,* ball toward the floor and tip toward the midline (fig. 1-a).

3—The arm and leg must be moved synchronously on each side.

4—Head, shoulder, trunk, hip movements, should proceed to assist arm-leg movements in proper time sequence.

5—Arm-leg on each side should finish a complete stroke or cycle before beginning another sequence.

The final objective of rehabilitation patterns of movement are, of course, designed when possible to bring the patient to a state of independence in walking, feeding, and self-care. Our observations have convinced us that the pool (fig. 2) or its equivalent, when used to develop swimming-amphibious patterns, as well as for its hydrotherapeutic effect, is a necessary step in the long series of levels, through creeping, crawling, and scampering, to eventual standing and walking. Adequate floor and sand substitutes may be offered as illustrated.

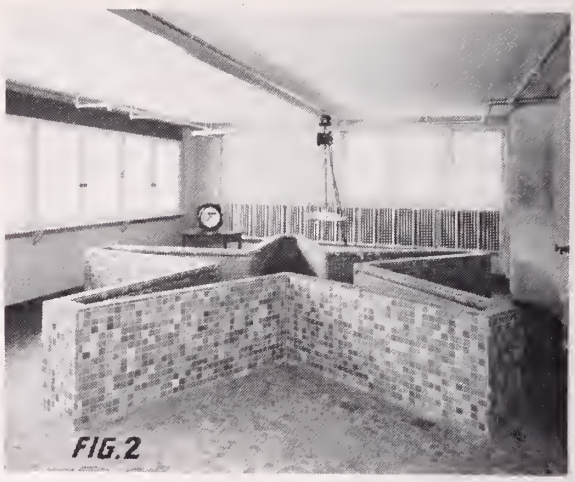

Fig. 2. "Starfish" pool at the Neuro-Physical Rehabilitation Clinic showing hoist for easy transportation of the patient. Design by the author intended to make the patient accessible to the operators from all angles.

Those who grow impatient to obtain quickly the skilled acts, such as feeding, writing, and locomation from defective cerebral levels, should recall that successful accomplishments here, as in music, require long practice before one can deliver such a masterpiece as the act of walking, which again like in music, may be considered a symphony of movement.

*In discussing the importance of the thumb position with Dr. Winthrop Phelps, of Baltimore, (1945) I learned he also had found that improved function of the hand followed when the thumb was held in this position, and he has devised an appliance to hold it thus.

EPISTAXIS

Nosebleed is of frequent occurrence, often stops spontaneously and in the great majority of cases is easily controlled. It may, however, be extremely persistent and, although seldom endangering life, may cause much anxiety to both patient and physician. . . .

Various means of control have been advocated, among them pressure with packs saturated with hydrogen peroxide or adrenalin, the application of salt pork, fresh tonsillar tissue, snake venom and various hemostatic preparations and the submucous injection of novocain. The use of an inflated glove finger has also been suggested.

The simplest and most efficient method, when the bleeding point can be readily seen, is direct cauterization of the anesthetized mucous membrane. Care should be taken not to burn too deeply, thus perforating the opposite nostril. In some cases of mild bleeding a crystal of chromic acid fused on a metal applicator is sufficient.—Henry H. Amsden, M. D., in New England Med. J.

THE RUNABOUT CHILD*

By THOMAS G. FOLSOM, M. D.,
Huntington, West Virginia

When speaking of a runabout from the pediatric point of view, we have in mind the active normal child from two to six or seven years of age. These are, of course, only arbitrary age limits, and are flexible. In the usual course of events, these children have survived the hazards of infancy, and are able, with proper medical attention and good care, to combat most any prevalent illness with satisfactory results. They have passed through early feeding difficulties; various food idiosyncrasies, if any, have become evident, and their immunizations have been completed. In fact, it seems like a time for parents to relax and enjoy their offspring, but too often at this period they become too vigilant and overly indulgent. This statement applies principally to parents with their first child, if there has not been a younger addition to the family by this time who demands part of their attention.

To those of us, then, who meet the runabouts and their parents professionally, a very familiar pattern of events is encountered daily in office practice. Some of you not called upon to treat these children, unless they present some special physical defect, may recognize some of your own problems in this discussion if you now have, or ever have had, a runabout of your own, especially a boy.

At present, when most physicians are fully occupied with the care of patients definitely sick, the common complaints relative to the runabout are a necessary annoyance. In normal times, however, these same complaints would constitute an interesting field of investigation. They are almost stereotyped and form a list usually as follows: "My child won't eat a thing. He's nervous and irritable, restless at night, and doesn't look well." Other information which may be volunteered in the history as the mother gains momentum with her story are: "He's constipated at times, complains of abdominal pain at intervals, looks puffy under his eyes occasionally, doesn't mind very well, and makes his father mad at mealtime." The parents are convinced there is some organic illness present, and they consider it the job and duty of the physician to uncover some obscure and perhaps strange malady.

The problem is a real one, and should not be minimized, as it can be the major disturbing element in which might otherwise be a fairly peaceful and happy household. It is unfortunate that so little time can be alloted at present for listening and talking, as it takes a lot of each to satisfy the mother and the father of a problem (?) runabout. If this discussion is limited to what can and should be done about their child's appetite, it will also serve as a means to correct or alleviate the accompanying complaints of nervousness, irritability, restlessness, constipation, abdominal pain, poor appearance, bad behavior, and an angry father.

To be in a position to give advice concerning a child's abnormal behavior, one must first be familiar with what falls within the limits of normal behavior for a runabout. The rate of weight gain almost invariably decreases when children are about one and a half to two years of age, or when their weight is about twenty-five to thirty pounds. An infant usually gains from one and a half to two pounds a month for the first six months, averaging a weight gain of one ounce per day, then about a pound or a little less the next six months. The second year the gain is a half a pound per month for six months; then he fails to show any appreciable gain at all, remaining at or about the same weight for weeks at a time. Thus, it may be evident that since the child's normal growth has slowed down, he requires less food, and if he eats the equivalent of one good meal a day, his requirements are nearly fulfilled. In the majority of cases, if the food is made available the child gets what he needs, although he doesn't eat what pleases us or enough of it.

In the second place, the child is becoming extremely active. Having now developed great skill and speed in locomotion, and finding innumerable outlets for a seemingly inexhaustable store of energy and curiosity, he's really altogether too busy to take time out to eat. There are many new attractions and distractions at the table and away from it. He may obligingly serve a little time at the table, but very often is thinking of what he can do as soon as he gets out of the house again, and is entirely disinterested in food. Growth in length continues, however, so that he changes almost overnight from chubby babyhood to the typical linear habitus of childhood: he's exchanging "baby fat" for muscle, trading tissue for tissue, rather than adding to his total mass. It is surprising to most people to learn that a child's height at the second birthday is usually equal to about half his height at maturity.

*Presented before the Junior Medical Review Society at Huntington, West Va., January 3, 1946.

Thirdly, anatomic growth of nervous tissue is about 60 per cent complete at the second birthday, and then proceeds at a slower rate, until it is practically complete ten or twelve years later. Last but not least, the period of minimal weight gain coincides with that of psychologic negativism. The child is out to learn for himself, and resents any efforts to confine his sphere of experimentation.

The boy is physiologic. Being also human, he appreciates attention and suddenly discovers that the very best time and place to get lots of attention is just at the time and place he is supposed to eat. He is in the center of the stage and he loves it, and usually is smart enough to use his advantage for his own gain.

Some definite procedure should be followed as we are called upon to help the runabout and especially his parents. First of all, a thorough physical examination is indicated and is very often essentially negative. To continue our efforts to rule out organic disease, if further investigations do not inflict too much financial strain on the parents, a urinalysis, blood count, tuberculin test, sedimentation rate, and various x-rays may be obtained. If the history is suggestive, skin testing to determine an allergy to certain foods may be done. If no pathologic change is found, and in nine out of ten cases none is, we must then put on a good "sales talk," to gain the confidence of the parents and convince them that their son is not sick, he is only physiologic. There are rare occasions when a real psychologic or psychiatric problem is present, and the services of a specialist in these fields are required to untangle the mess some families get into.

What should the busy doctor do? First, he should emphasize that an appetite cannot be bought. In these times, when the gullible American public has such an unbounded faith in the magic powers of vitamins, we hear constantly demands for tonics or prescriptions to encourage an appetitie. Nothing from a teaspoon per se will make a child clean his plate each mealtime. If any prescription is given at a time roughly coinciding with a natural resumption of gain, we have an immediate triumph to be bandied about bridge tables for months, just as various eczema cures are popularized. Some pediatricians believe that unless definite medical indications are present, a tonic often serves only to aggravate the problem further by focusing even more unwarranted attention on it, and leaving the impression that a true medical problem exists. I, personally, feel that a simple vitamin B tonic, to be given at a regular time, may be a psychologic aid to the parents who definitely are involved in this problem. They should realize that the administration of the tonic is, however, only a small part of the whole plan of treatment.

Second, the physician should explain that this phenomenal disturbing period of minimal weight gain occurs almost regularly at about this age or weight. He should anticipate the problem and explain to the parents when the child is a year old that his present rate of weight gain obviously cannot continue forever.

There are several specific instructions which usually prove helpful:

First, the child should be required to come in the house and relax or at least cool down fifteen minutes before mealtime. He may be permitted in the kitchen to see and smell the food. Then, perhaps when he goes to the table, he may be interested in the food. As mentioned previously, the child is not in the mood to eat if he rushes in from play and goes to the table, thinking of what he has been doing, and what he *will* do when he gets out again. It is unsual for a person of any age to relish a full meal at the height of vigorous exercise. Platou (whose opinions are freely expressed in this paper), in referring to this aspect of eating in children, asks, "Can you imagine a steak dinner served between sets of tennis?" The evening radio hour, from five to six with the cereal serials, permitting the older runabouts a rest period before dinner, probably does more for their appetites than any vitamin ever could.

A second admonition, all too frequently ignored, is to omit any discussion of appetite, weight or feeding difficulties in the child's presence. When his performance at mealtimes fails to elicit any reaction, the problem is well on the way to solution. Bribes, scoldings, and punishment at the table are taboo, and only cause the child to associate his mealtime with something unpleasant—a sure way for any appetite to be ruined. Adequate, or smaller than usual helpings should be served at the usual hour, left for the usual time, and then removed with no comment or action, regardless of how much or how little has been eaten. Any normal child will usually eat all he is going to eat in half an hour or less; longer mealtimes are manifest admissions of faulty feeding techniques.

Third, no foods should be allowed between meals at any age, and in the young growing child they serve only to replace foods much more valuable nutritionally. This rule is certainly not infallible, as some children can eat a little between meals

without harmful effects. The food taken, however, should be of the type which empties readily from the stomach, such as fruit, or fruit juices, and not milk, bread, crackers, or cookies. The amount of carbohydrate voluntarily taken by a child is probably directly related to the inadequacy of his diet in essential proteins, minerals, and vitamins. Usually it can be assumed that the child with a "sweet tooth" is not getting the proper foods for optimal growth and development. Carbohydrate intake, however, should be adequate, as carbohydrates are a ready source of energy and well utilized by any youngster. Sluggishness or lack of vigor and vitality in some children can at times be attributed to inadequate carbohydrate consumption. I do not believe that eating at bedtime should be discouraged. Some children eat well at this time when the excitement of the day is ended and they discover they are hungry. They often balance up their diet for the day at this time with milk, cereal, fruit, or a meat sandwich. In addition, for any child who retires at a decent hour for his age, it's a long time until breakfast.

Fourth, there is no single essential item in the whole list of foods, and no particular food is worth an argument at mealtime. A child is entitled to reasonable likes and dislikes, as are all of us, and adequate substitutes for any of the common foods can always be arranged. While every effort should be made to encourage children to take a large variety of foods, none should ever be forced. Most children will consume adequate amounts of meat, eggs, fruits, desserts, and milk. Vegetables and starches can be used to fill in if they are desired and liked. Carlson states that the most important considerations leading to a normal nutritional status are: variety, natural foods, and omnivorousness. It is generally agreed that the best time to establish appetites or likings for a wide variety of natural foods is early in life when such foods are introduced into the diet. If a child's diet is to be varied, it is well to make sure that he does not acquire the habit of taking excessive amounts of milk. There are some who will drink milk in place of water to quench their thirst, and, in so doing, dull their appetite for other essential foods.

COMMENT

Only one common characteristic of the runabout has been discussed at length in this paper. Generally speaking, he should be steered in the right direction without being pushed and with the hope entertained that he doesn't get hurt along the way. He is indeed an interesting and a complex individual.

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ANY AGE CANCER AGE

The term "cancer age" is misleading and does great harm in two ways: its use produces a state of hypochondriasis in the old, and it gives rise to a false sense of security in those outside this period of life. Gastric carcinoma may occur at any age, and the so-called cancer age is much less valuable as a diagnostic criterion than the minor digestive symptoms that are so frequently associated with the disease.

Plainly, we must accept and teach the fact that any age is a cancer age.

Vagueness in symptoms in cancer of the stomach is to be regarded as a definite presentation of the malady with persuasive diagnostic properties. Painlessness is little evidence against the diagnosis of cancer of the stomach, and the farther removed the growth from the two extremes of the stomach the later are symptoms likely to appear. We must endeavor to detect the disease in the phase of lack of impressive signs or symptoms; as when neither the cardiac nor the pyloric orifice is involved, and so there is no hesitation in food entrance and no obstruction to food exit. Suggestive symptoms, however faint, call for searching inquiry. The easier it is to diagnose cancer the harder it is to cure.—J. Fred Nash, M. D., in J. So. Med. and Surg.

REJECTEES USEFUL CITIZENS

Recently it has been stated repeatedly that five million men, or approximately one-third of the draftees, were rejected because of physical defects. This has been used as an argument that medical care has been inadequate. However, these same people fail to state that the standards of acceptance into our Army were much higher than those of any other country, and that many of these rejected draftees were later accepted into the armed forces. They also failed to state that many of these defects have no reaction to medical care.

If children are nearsighted or astigmatic, adequate medical care demands glasses for correction; whereas the Army or Navy decides whether or not it wants such an individual. Little can be done for color blindness, loss of limb, allergy, hay fever, and many of the so-called "mental and nervous conditions," although with proper medical management the great majority of these people are integrated into useful employment in civilian life. Yet these and other similar conditions comprised a large part of the rejectees. Cleon A. Nafe, M. D., in J. Med. Ind. St. Med. Assn.

THE THREAT OF POLITICAL MEDICINE*

By D. A. MacGREGOR, M. D.,
Wheeling, West Virginia

Last January the Presidents of all of the State Medical Societies were asked by the National Physicians Committee to nominate two representatives from each State to attend a special meeting in St. Louis. Dr. Ray Bobbitt and I were the two representatives from West Virginia. The total attendance at the meeting was approximately one hundred and twenty men. The only states which were not represented were Vermont, Connecticut, and Rhode Island. It was a source of considerable satisfaction to know that busy doctors from practically every state in the Union were willing to drop their work and make a long trip in an effort to decide upon a practical plan of defense against the attacks of those who seek to place the practice of medicine under political control.

FUNCTIONS OF NATIONAL PHYSICIANS COMMITTEE

Even at this late date there are many of us who do not understand why it is necessary for us doctors to support a National Physicians Committee and operate through such an organization for the protection of our interests. We doctors have been a little bit suspicious about the National Physicians Committee. We have wondered why the A. M. A. could not do the job and why it was necessary to set up an entirely different organization. We have wondered if it was wise to contribute our money to an organization separate and apart from the A. M. A. Here are the reasons:

The A. M. A. has a large income from its publications, from its investments, and from its many scientific activities. That income is necessary to the proper functioning of such a gigantic organization. The A. M. A. pays no income tax because it is chartered as a non-profit institution for educational and scientific purposes only. If the A. M. A. should take an active part in politics sponsoring a lobby in Washington on behalf of its membership, there is no doubt that such action would be construed as a violation of the provisions of its charter and that the federal government would immediately require the A. M. A. to pay an enormous income tax.

The National Physicians Committee for the Extension of Medical Service is chartered as a non-profit institution in the State of Illinois. The Committee endeavors to familiarize the public with the facts in connection with the values, the methods, and the achievements of American medicine. It is possible for this organization to engage in lobbying when necessary to protect the interests of the American medical profession. It is supported by voluntary contributions. About one-half of its support comes from the doctors. The other half comes from sources outside of the medical profession, such as drug manufacturers, retail druggists, medical instrument manufacturers, philanthropic individuals, and many others who are interested in the preservation of our American ideals. It is quite evident that the American Medical Association, which has departments devoted to the investigation of drugs, foods, medical equipment, etc., is not in a position to accept voluntary contributions from such outside sources.

OBJECTIVES

At the time of the meeting in St. Louis the directors of the National Physicians Committee had in mind four primary objectives:

(1) The meeting was called so that a number of physicians would have an opportunity to study Senate Bill 1606 and discuss its various provisions in detail in an effort to decide which of its provisions are desirable and which are objectionable.

(2) A careful analysis of the bill was undertaken in order to have available a number of men who would be competent to go before a congressional investigating committee and testify intelligently and convincingly.

One doctor, testifying about two years ago before an investigating committee on a similar bill, admitted upon examination that he had never read the bill. Naturally such an admission discredited the doctor as a witness and reflected very unpleasantly on the whole medical profession.

(3) The National Physicians Committee expects to send a small group of well-informed physicians to Washington to appear before the congressional committee when it is considering S. 1606. Furthermore, it is considered desirable for two doctors from each state to go to Washington and make contact with their own state representatives.

(4) It is planned that the state and county medical societies shall establish legislative committees in each congressional district whose function it will be to interview candidates before election and attempt to get an expression of opinion with regard to pending medical legislation. The importance of these committees cannot be emphasized too strongly. If we could have active committees which would in-

*Presented before the Ohio County Medical Society, at Wheeling, West Va., February 15, 1946.

terview every candidate in every congressional district before election their combined influence would be the most potent weapon available to us.

EIGHT YEARS OF POLITICAL PRESSURE

The attempts to reform or socialize the practice of medicine have come thick and fast in the past eight years. I think it was in 1938 the American Medical Association was indicted as a monopoly in that hotly contested lawsuit in the District of Columbia. You will recall that organized medicine lost that suit, and the court declared the practice of medicine a trade. The first Wagner bill came about a year later. It called for a very modest nine hundred million dollar program. The Bill died with the adjournment of Congress. The second Wagner-Murray bill came along in 1943. It called for something like three billion, four hundred million dollars worth of political medicine. The opposition was so strong that the Bill was never voted out of committee. Another Wagner-Murray bill was introduced into Congress in May of 1945. It called for four per cent taxes on both employer and employee up to thirty-six hundred dollars of income as well as five per cent for the self-employed and government or state employees. It was estimated that this tax might amount to ten billion dollars. That bill has been held in committee.

On November 19, 1945, Mr. Truman read his message on "A National Health Program" to a joint session of the Congress. It is a convincing and persuasive message with many good recommendations. At the same time it unequivocally endorses Mr. Wagner's plans for the political control of medical practice. Some men fancy that they can see the clever writing of Judge Sam Rosenman in the message.

It is quite significant that in the message, and in the bill which implements it, all of the previous objections voiced by the doctors against the Wagner plan were mentioned with alleged cures. For instance, it is stated that the patient-doctor relationship will be preserved and that fair rates of pay will be maintained. A critical reader will not be fooled by all this window trimming. He will know that a centralized political control will not permit the preservation of the patient-doctor relationship. He will know that when a physician gets his remuneration from a bureau, either on salary basis or on a fee basis as a panel physician, there will be very little in such a plan to stimulate his incentive and his interest in progressive medicine. In his message Mr. Truman emphasized the fact that he was not recommending socialized medicine, but writing that statement into the bill itself a hundred times would not make it true.

Immediately after the President's message was delivered, Senators Wagner and Murray and Representative Dingell introduced their new identical bills in the Senate and the House. It is the same old plan dressed up in new clothes. On the surface it would appear that the bills were introduced to carry out the President's recommendations, but on second thought it is apparent that the President's message was delivered in order to inject new life and strength into the old plan which so far has failed of adoption.

THE W. M. D. BILL—TITLE I

Now let us examine Senate Bill 1606 and see what it provides. In discussing the bill, I shall quote extensively and without further acknowledgment from pamphlets issued by the National Physicians Committee. The provisions of the bill are as follows:

(1) Grants-in-aid to states for the treatment and control of venereal disease and tuberculosis and the extension of the Public Health Service.

Both the medical profession and the public are in favor of steps to be taken to provide treatment and control of tuberculosis and venereal disease and extending the Public Health Services through grants-in-aid to states when it is explained that these things should be done WITH STATE CONTROL AND LOCAL ADMINISTRATIVE AUTHORITY.

(2) An extension of maternal and child health services through grants-in-aid to states.

Transferring the Children's Bureau from the Department of Labor to the Public Health Service is desirable. Both the medical profession and the public are in favor of extending maternal and child health care to all mothers and children, WHERE PAYMENTS FOR SUCH SERVICE WOULD BE A HARDSHIP, through grants-in-aid to states with state control and local supervision. However, we believe that the decision as to whether or not a hardship exists should be left in the hands of a local or county board, and that is not provided in the bill.

(3) Grants-in-aid to states to provide medical care for the needy.

The medical profession and the public, when the situation is explained, are in favor of federal grants-in-aid to supplement funds of state and local agencies to provide full medical care and hospitalization

to all persons for WHOM THE PAYMENT FOR SUCH SERVICES WOULD BE A HARDSHIP. Again we feel that the existence of a hardship should be determined by a local board familiar with local conditions and in a position to investigate individual cases.

It is evident that there is no fundamental objection to these three provisions. We can lend our support to them if there is State control and local determination of need.

THE W. M. D. BILL—TITLE 2

(4) Health services for all Social Security beneficiaries and all of their dependents.

This part of the bill establishes authority and machinery for the federal government to provide prepaid personal health service benefits. When we study the bill we find that personal health service benefits include general medical benefits, special medical benefits, general dental benefits, special dental benefits, home nursing benefits, laboratory benefits, and hospitalization for all social security beneficiaries and their dependents. That means every man and woman who is on a pay roll. In addition to this, provision can be made for the inclusion of other persons or groups not now covered under the provisions of the social security act. Under existing laws approximately 110 million people would be entitled to receive these multiple health benefits and presumably under the new proposal the benefits would be extended to a total of 130 million people.

The President in his message indicated that the cost of providing such over-all medical care would approximate four per cent of wages. The term, "wages," means the income of both employed persons and self-employed individuals up to three thousand six hundred dollars per year. It is estimated that the sum involved would approximate four billion dollars annually. But here's a very interesting observation! This bill was introduced without any provisions for a special tax to meet the cost. It has been stated on good authority that no provision was made for payroll tax deductions in order that the bill might be referred to the friendly Committee on Education and Labor in the Senate rather than the Finance Committee and to the friendly Interstate and Foreign Commerce Committee in the House rather than the Ways and Means Committee which must deal with all matters affecting taxation.

Now perhaps you would like to know who would have control of the expenditure of this approximately four billion dollars per year. One man, the Surgeon General of the Public Health Service, with the approval of the Federal Security Administrator, is authorized and instructed to provide medical care, dental care, laboratory care, nursing care, and hospitalization for all of these people. The bill reads as follows:

> "The Surgeon General of the Public Health Service shall perform the duty imposed upon him by this Act under the supervision and direction of the Federal Security Administrator, and the Surgeon General is hereby authorized and directed to take all necessary and practical steps to arrange for the availability of benefits."

U. S. PUBLIC HEALTH SERVICE PROPAGANDA

At this point I should make a personal explanation. I hold a commission in the United States Public Health Service, inactive status. I received that commission during the war when a group of doctors in Wheeling organized a hospital unit with the understanding that the unit might be activated in case of agreat military emergency in which existing military hospitals might not be able to handle the load. Last January all of the officers of the Public Health Service received a circular letter from Surgeon General Thomas Parran which seems to me to be all-out propaganda for S. 1606. Along with that letter he sent us a copy of the President's message on "A National Health Program." In the letter he stated, "This has been a goal of all public health workers for many years, and the enunciation of such a policy by the Chief Executive gives the Public Health Service definite objectives for its future work." The closing paragraph of the letter is particularly significant. I quote: "Every officer of the Public Health Service will wish to familiarize himself with the President's message and will be guided by its provisions when making any public statement likely to be interpreted as representing the official views of the Public Health Service."

For the benefit of the record let me state right now that any opinions expressed in my talk to you tonight are my own and by no stretch of the imagination can they be interpreted as representing the official views of the United States Public Health Service. It is easy to understand the attitude of the Surgeon General in this matter. Under the President's proposals and Senate Bill 1606, Dr. Parran or his successor would be given the authority to manage and control practically all of the medical, dental, nursing, and hospital services of the whole country—a multi-billion dollar undertaking.

I mean no disrespect to Dr. Parran personally when I say that I do not believe there is any man with such great sagacity and probity that he could be safely intrusted with such a vast responsibility and so much economic and political power.

ADVISORY COUNCIL

Under the provisions of the bill, the Surgeon General is required to establish an advisory council. This council of sixteen members is chosen by the Surgeon General himself with the approval of the Federal Security Administrator. The function of the advisory council is simply to advise, and they are required to meet twice a year Absolutely all of the authority is centered in the Surgeon General with the approval of and under the direction of the Federal Security Administrator. Let me give you a list of his responsibilities:

(1) Hire doctors, specialists, dentists, nurses, laboratory technicians, and establish rates of pay.

(2) Establish fee schedules for physicians' and dentists' services.

(3) Fix the qualifications for specialists. The Act reads: "Specialists or Consultant services shall be those designated by the Surgeon General."

(4) Determine what hospitals or clinics may provide service for patients and under what conditions.

(5) Determine the number of individuals for whom any doctor or dentist may provide service.

(6) Negotiate or renegotiate contracts or agreements with representatives of public agencies, nonprofit groups and individuals, for the purpose of providing full medical benefits to all Social Security beneficiaries and their dependents.

(7) Make reports to Congress.

SOCIALIZED MEDICINE AT ITS WORST

If all the provisions of this proposed legislation were put into operation this act would destroy the private practice of medicine in the United States. In his message the President stated naively, "Socialized medicine means that all doctors work as employees of government. The American people want no such system." Well, that is exactly what the bill provides. About 130 million people in the United States would be entitled to complete medical and dental care at the hands of doctors, specialists, dentists, nurses, and laboratory technicians, hired by the Surgeon General and working under the rules and regulations laid down by his department. President Truman is absolutely right in saying that the American people want no such system. We doctors want no such system, and we should oppose it relentlessly and vigorously on all possible occasions. We know that in every instance where the government has interfered in the distribution of medical care the quality of medical care has seriously deteriorated, the initiative and incentives of the individual doctor have been undermined, and the medical profession has been robbed of its independence and its self-respect.

RESEARCH AND EDUCATION SUBSIDIZED

(5) The final portion of the bill provides for federal funds to subsidize medical research and education. Quoting from the bill, "The Surgeon General is authorized and directed to administer grants-in-aid to nonprofit institutions and agencies engaging in research or undergraduate or postgraduate professional education." We cannot have much objection to the spending of money for research and education. It is estimated that about eighty million dollars annually would be available under the terms of the bill for this purpose. Again we find that one man, the Surgeon General, has full authority to expend or allocate this research-educational fund. True enough he has an advisory council which is hand-picked by himself, but with or without the approval of the advisory council the Surgeon General has the authority to wield the power of the purse over every research and educational institution. We do not believe that the authority to expend or allocate eighty million dollars annually should be vested in a single individual. Furthermore, there are some of us who think that when the Federal Government is staggering under a debt which is so large that it baffles our comprehension it is no time for us to be making extravagant plans for additional spending on a lavish scale even for such desirable purposes as are contemplated in the acceptable portions of this bill.

WHAT CAN WE DO ABOUT IT?

We have now covered the important points in S. 1606. I think you will agree with me that, as a whole, it is highly undesirable. What are we going to do about it? Most of you are sick and tired of the subject of socialized medicine. You have been hearing so much about it during the past eight or ten years, during which time nothing very serious has happened to the practice of medicine, that you would like to ignore the whole business and get on with

your work. Meanwhile the proponents of socialized medicine keep right on hammering from without and boring from within. They don't overlook any new angle for attack. Witness that letter which the Surgeon General sent to all of the United States Public Health officers. Also please note that the expense of such propaganda usually comes out of the taxpayers' pockets. We must not grow weary. The situation is really critical. Senate Committee hearings on this bill are scheduled to begin March 18th. We must not shirk our responsibility. No one of us is a worthy son of Aesculapius if he does not do his part to preserve the practice of medicine from political control.

It is a great mistake to think that the individual doctor can do very little by himself. Every physician should discuss the subject with his patients and with his friends. His opinions are respected, and they will be quoted. Perhaps the greatest service that can be rendered by the individual doctor is the writing of personal letters to his senators and to his representative. That is a very small effort to make. Just three letters and they can be identical. We who are not in politics are inclined to underestimate the influence of these letters from home. If each and every man in the Ohio County Society would write these three letters, our Society would be justified in feeling that it had given very material assistance toward the defeat of this proposed legislation.

WRITE YOUR CONGRESSMAN

The letters to the Congressmen should really contain something more than the simple statement that you hope the bill will be defeated. Tell your Congressmen that you feel that this legislation is an attack against the idealism of the medical profession, that it will discourage our efforts to attain superiority and will encourage a scramble at the level of mediocrity. Tell your Congressmen that you believe a large part of the tax money which will be collected under this bill is not going to be used for the purposes for which it is dedicated. Out of every three dollars which we send to Washington in tax money under this plan we shall be lucky to have as much as one dollar returned to us in actual medical service. Tell your Congressmen that you believe the most extravagant method for handling any business is to have it under political domination controlled by a central bureau in Washington and managed by innumerable subsidiary bureaus and appointees scattered all over the United States. Under such a system it is quite conceivable that there might be as many laymen as professional people directly or indirectly connected with dispensing medical and dental care. The federal government has never been noted for either efficiency or proficiency in the administration of business. Tell your Congressmen that the returning veterans who have had a taste of government medicine do not hanker for it when they come back home. Every one of you has had occasion to observe how pleased the sick veteran is to get back to his family doctor. Furthermore, the doctors who have been in service do not want socialized medicine. They are anxious to get back into private practice and away from regimentation and control. Tell your Congressmen that under a plan like this doctors become technicians and patients are pawns. Tell your Congressmen that the socialization of medicine is just the first step toward a general socialization and the establishment of a totalitarian state. Remind them that the same scheme has been tried in other countries and that in no one of those other countries is the medical service to the people comparable with the medical service here in our own country. Tell your Congressmen that you wish to preserve to your sons the right to practice medicine independently and in accordance with high professional ideals. We believe in the freedom of private enterprise and the other freedoms that constitute the American way of life. Tell them that you do not want to see the finest medical profession in the world placed under political control.

The Editor of the South Carolina Medical Association Journal states the situation very concisely.

> "1. As a *taxpayer,* I am opposed to a federal system of medical care because it is too costly and because it is unnecessary.
>
> "2. As a *citizen,* I am opposed to a federal system of medical care because it is in direct opposition to the fundamental American principles of personal initiative and personal responsibility.
>
> "3. As a *physician,* I am opposed to a federal system of medical care because in the first place, the medical needs of our people could not be served by a single central plan. In the second place, the experience of other countries has not shown its great worth. In the third place, such a system is not necessary to bring about the improvements which are needed in our present system of medical care; and lastly, no physician can conscientiously and efficiently serve two masters, his patient and the governmental agency."

A CONCISE PHARMACOLOGY OF THE ANTIBIOTIC AGENTS*

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INTRODUCTION

As far back as the time of Pasteur it was recognized that when typhoid and diphtheria organisms, pathogenic staphylococci, and other bacteria are added to soil they rapidly disappear, their destruction presumably being attributable to the antagonistic action of the bacteria normally present in soil. The idea of utilizing such bacterial antagonisms for the control of disease occurred to many investigators. In 1899, Emmerich and Loew succeeded in isolating from the green pus-producing organism, *Pseudomonas aeruginosa* (*Bacillus pyocyaneus*), a substance they called "pyocyanase" which, even in low concentrations, had a marked inhibitory effect upon diphtheria, cholera, typhoid, and plague organisms. However, repeated attempts by various investigators failed in the isolation of any purified product of therapeutic value until 1939. Dubos, as the result of studies conducted at the Rockefeller Institute for Medical Research, announced the isolation of an extract, obtained from autolysates of a particular strain of a soil bacillus, *B. brevis*, which selectively inhibited the growth of a variety of gram-positive organisms in vitro, and under certain conditions afforded protection to mice inoculated with virulent pneumococci.

Meanwhile, in 1936, a group of research workers at Oxford University, headed by H. W. Florey, had begun the study which led to the final isolation of penicillin. Penicillin had been first uncovered by the observations of Fleming in 1929. While working in the laboratories of St. Mary's Hospital, London, this investigator had set aside on the laboratory bench a number of culture plates which had become contaminated by exposure with a variety of micoorganisms. In Fleming's words, "It was noticed that around a large colony of a contaminating mould the staphylococcus colonies became transparent and were obviously undergoing lysis." It appeared to him highly prohable that the explanation of this phenomenon lay in the production by the mold of a bacteriolytic substance which had diffused into the medium. Sub-cultures of the mold, a strain of *Penicillium*, were made in nutrient hroth. To broth filtrates containing the antibacterial substance Fleming gave the name "penicillin," a term which is now usually restricted to dried preparations of the active principle. Despite the exhaustive nature of his study, which established beyond all reasonable doubt the antibacterial potency and lack of toxicity of penicillin, Fleming did not succeed in extracting the material from the broth in which it was formed. Nevertheless, his faith in the clinical possibilities of the agent was manifested even at this stage by his suggestion that "penicillin may be an effective antiseptic for application to, or injection into, areas infected with penicillin-sensitive microbes."

It was the problem of extracting penicillin in purified form which attracted the Oxford workers. In 1940 they revealed that they had devised methods for obtaining a considerable yield of penicillin and for making a rapid assay of its potency. From the culture medium a brown powder was ohtained which was freely soluble in water. This powder and its solution, stable for some time, had very great antibacterial power. It was obvious that the discovery of penicillin constituted one of the greatest forward steps in chemotherapy. Under many clinical circumstances which appear to nullify completely the effect of the sulfonamides, the activity of penicillin remains undiminished, and this, coupled with its low toxicity, makes the agent appear incomparably superior to the sulfonamides. With the entrance of the United States into the war, coöperative research and production on a large scale was inaugurated with the ultimate solution of the prohlems of chemical structure, commercial supply, and rational clinical use.

The overwhelming success with penicillin and the establishment of relatively simple procedures for working with such agents have led to vigorous search for similar, even better, materials from other sources. Aside from a slight interest in tyrothricin (a unimolecular mixture of gramicidin and tyrocidine) as a surface antiseptic, only one agent has survived the obstacles of production and pharmacological investigation to be tried clinically. The rational pharmacology of this agent, streptomycin, and that of penicillin are given later in this article, as well as a summary of the characteristics of certain of the interesting antibiotic agents and their effectiveness against some of the important microörganisms, in comparison with the sulfonamides.

Chemical synthesis of these agents does not seem commercially feasible since microörganisms manu-

*Presented in part before Monongalia County Medical Society, at Morgantown, January 8, 1946.

SUMMARY OF ANTIBIOTIC SUBSTANCES

Substance	Organism Source	Chemical Type	Chemical Formula	Activity	Toxicity
Actinomycetin	S. albus	Polypeptide		Gram-positive (G+)	-
Actinomycin	S. antibioticus	Quinone-peptide	$C_{41}H_{56}O_{11}N_8$	G+, some G-, virus?	0.15 mg/Kg*
Aspergillic acid	A. flavus	Semiketone	$C_{12}H_{29}O_2N_2$	G+ and G-	120 mg/Kg
Citrinin	P. citrinum	Quinone	$C_{13}H_{14}O_5$	Low G+	100 mg/Kg
Clavacin,* Patulin, Claviformin, Clavatin	A. clavatus, P. patulum	Ketone	$C_7H_6O_4$	G+, G-, some fungi	3.5 mg/Kg
Diplococcin	Streptococci		-	G+ cocci	-
Fumigacin, Helvolic acid	A. fumigatus	Ketone	$C_{29}H_{40}O_7$	G+	800 mg/Kg
Fumigatin	A. fumigatus	Quinone	$C_8H_8O_4$	Low activity	-
Gliotoxin	Trichoderma, Gliocladium, A. fumigatus	Orthoester	$C_{13}H_{14}O_4N_2S_2$	G+, fungi	5 mg/Kg
Gramicidin	B. brevis	Polypeptide	$C_{146}H_{202}O_{26}N_{30}$	G+	10 mg/Kg
Iodinin	Ch. iodinium	Pigment	$C_{12}H_8O_4N_2$	Streptococci	-
Notatin, Penatin, Penicillin B, Mycoin	P. notatum P. chrysogenum	Enzyme-oxidase	-	G+ and G-	-
Penicillic acid	P. puberulum P. cyclopium	Ketone	$C_8H_{10}O_4$	G+ and G-	-
Penicillin, Flavicin, Flavatin, Aspergillin, Flavacidin, Gigantic acid, Parasiticin	P. notatum P. chrysogenum, A. flavus, A. giganteus, A. parasiticus	Ketone	(I)F $C_{14}H_{20}N_2S$ (II)G $C_{16}H_{18}O_4N_2S$ (III)X $C_{16}H_{17}O_5N_2S$ K $C_{16}H_{26}O_4N_2S$	G+	2000 mg/Kg
Proactinomycin	N. gardneri	Ketone-base	-	G+	Toxic
Puberulic acid	P. puberulum	Quinone	$C_8H_6O_6$	Weak G+	-
Pyocyanase	Ps. aeruginosa	Lipoid	-	G+ and G-	-
Pyocyanin	Ps. aeruginosa	Quinone	$C_{13}H_{10}O_2N_2$	G+	800 mg/Kg
Spinulosin	P. spinulosum	Quinone	$C_8H_8O_5$	Weak agent	-
Streptomycin	S. griseus	Ketone-base	$C_{21}H_{37}O_{12}N_7$	G-, some G+	750 mg/Kg
Streptothricin	S. lavendulae	Ketone-base	$C_{13}H_{25}O_7N_5$	G-, some G+	3000 mg/Kg
Subtilin	B. subtilis	Polypeptide	-	G+, some fungi	-
Tyrocidine	B. brevis	Polypeptide	$C_{146}H_{202}O_{26}N_{30}$	G+ and G-	20 mg/Kg
Violacein	Ch. violaceum	Pigment	-	G+	-

*Where the same agent is known by several names, all these names have been grouped together; where an agent is prepared by several organisms, all these organisms are grouped together. This list represents about one half the known antibiotics.

*Acute toxicity in white mice which bears little relationship to either acute or chronic toxic effects in man.

facture them so cheaply and the products are relatively labile. However, synthetic derivatives (i. e., benzyl ester of penicillin is three times as potent and is active orally, and formaldehyde treated gramicidin loses toxicity but not activity) may be of promise, as may be the chemical relatives of some of these agents.

Relative activity of some antibiotic substances.

	Gram-Stain	Sulfonamides	Penicillin	Streptomycin	Actinomycin	Streptothricin	Subtilin
Staphylococci	+	+	+	+	+	+	+
Streptococci	+	+	+		+		
Clostridia (welchii, tetani, botulinum)	+	+	+		+		
Pneumococci	+	+	+				+
Neisseria							
Gonococci	−	+	+				+
Meningococci	−	+	+				+
Treponema							
Spirochaeta pallida (syphilis)	0	−	+				
Borrelia novyi (relapsing fever)	0	−	+	+			
Mycobacterium tuberculosis	0	−	−	+		+	+
Trypanosoma	0	−	−				
Bacillus subtilis	+		+	+	+	+	
Bacillus mycoides	+	+	+	+	+	−	
Bacillus proteus	−		−	−			−
Pseudomonas aeruginosa (B. pyocyaneus)	−		−	+		+	−
Actinomyces species (Actinomycosis)	+	?	+	+	−	+	
Oidium (Blastomycosis)	0		−				
Brucella melitensis (undulant fever)	−	−	−	+		+	−
Eberthella typhosa (typhoid fever)	−	−	−	+			−
Salmonella schotmulleri (paratyphoid)	−	−	−	+		+	−
Shigella dysenteriae (and other Shigellae)	−	+	−	+	+	+	−
Escherichia coli	−	+	−	+		+	−
Haemophilus influenzae	−	+	−	−		?	
Pasteurella tularensis (tularemia)	−	−	−	+		+	
Klebsiella pneumoniae (Friedlander's bacillus)	−	−	+	+			−
Plasmodia (malaria)	0	−	−	−			
Corynebacterium diphtheriae (diphtheria)	+		+				+
Leptospira icterohemorrhagiae (Weil's disease)			+	+			
Bacillus ducreyi (Granuloma inguinale)	−	+					

Unfortunately, none of these agents, nor any of the antibiotics, is of value against any virus infection, except possibly ornithosis and psittacosis, nor against toxoplasmosis, histoplasmosis, acute rheumatic fever, infectious mononucleosis, pemphigus, Hodgkin's disease, acute and chronic leukemia, coccidioidomycosis, poliomyelitis or moniliasis.

+ indicates that the material is active against some strain or strains of the organism listed in the left column, but does not necessarily mean that the material is effectively active against all strains of the organism. — indicates that the material is inactive or relatively inactive against the organism. +, — and 0 under the Gram-stain column indicates whether the organism is gram-positive or negative.

OUTLINE OF PHARMACOLOGY OF PENICILLIN

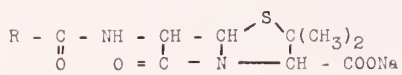
HISTORY.—1929. Fleming recognized the bacteriolytic activity of *Penicillium* extracts for various gram-positive cocci.

1936-40. Chain and Florey developed an assay and crude purification procedures.

1945. Wide-scale commercial production and elucidation of chemical structure had taken place.

SOURCE.—Cultures of *P. notatum* and *P. chrysogenum* grown in flasks or tanks on media containing corn steep liquor are extracted with organic solvents and concentrated.

CHEMISTRY.—



(I),	F,	R=Δ^2-pentenyl	(Flask culture)
(II),	G,	R= Benzyl	(Submerged tank)
(III),	X,	R= p-Hydroxybenzyl	(Superficial tank)
	K,	R= n-Heptyl	

OCCURRANCE AND STABILITY.—Penicillin occurs usually as the crystalline sodium or calcium salt, but the methyl, benzyl, and other esters are known. Commercial preparations are colored yellow to brown by impurities. The material is very labile, deteriorating rapidly in the presence of moisture, acid, or warmth. It is hygroscopic and very soluble in water.

BIOASSAY AND STANDARDIZATION.—The Oxford or Florey unit is that amount of penicillin which, when dissolved in 50 Ml. of meat extract broth, just inhibits the growth of a test strain of *Staphylococcus aureus*. However, the agent is now officially defined as one unit equals 0.6 micrograms of crystalline penicillin. Even this is inexact, as X or allopenicillin is most active and G least, and commercial preparations contain varying amounts of at least five penicillins.

LOCAL ACTION.—The agent is primarily bacteriolytic against gram-positive organisms on local application. It is painful in high concentration on abraded areas. Comparison with simpler antiseptics: Penicillin is active in dilutions of 1:4.5 million (some microörganisms as little as 1:160 million), while gentian violet is active only down to dilutions of 1:800,000.

SYSTEMIC ACTION.—The antibacterial activity (bacteriostatic and bacteriocidal) is primarily against gram-positive organisms. About 30 mg. of pure material are required to cure gonorrhea. About one million molecules of penicillin will inhibit one streptococcus, while about two hundred million molecules of sulfathiazole or ten billion molecules of sulfanamide are required.

ABSORPTION AND DISTRIBUTION

ORAL AND TOPICAL ADMINISTRATION.—Penicillin is destroyed by the acidity of gastric juice but it can be protected by coadministering antacids (aluminum hydroxide, sodium citrate, calcium phosphate, but not sodium bicarbonate), protein (egg-white), or oil emulsions. Apparently it is not technically feasible to make enteric-coated tablets. Three to five times the dose is required per os as parenterally. The agent may be given also by nebulization (aerosol).

PARENTERAL ADMINISTRATION.—Intravenous administration produces a maximum serum level immediately, while there is a delay of about thirty minutes after intramuscular injection and sixty minutes after subcutaneous administration. The agent is distributed from these routes to all body fluids (including the eye and amniotic) but the poor transfer to spinal fluid indicates intrathecal administration in meningitis unless very high systemic doses are given. It may be given intrapleurally, also.

DELAYED ABSORPTION.—Prolongation of action by delaying absorption may be accomplished by chilling the muscular site of injection with ice packs, and with the use of epinephrine, 5% dextrose, bone gelatin with neosynephrine, plasma protein adsorption complexes, or beeswax in peanut oil (it is possible to obtain appreciable blood levels for as long as seventy-two hours by these methods).

FATE AND EXCRETION.—Fifty to 70 per cent is excreted and unchanged through both the tubules and glomeruli of the kidney into the urine. Slight amounts are found in bile. The rate of excretion is rapid and dependent directly on the dose and route of administration (using 0.156 U/Ml. serum as an effective level: 5000 U IV are effective for only 30 minutes, while 40,000 U are effective for 185 minutes).

DECREASED EXCRETION.—Prolongation of action by decreasing the excretion may be accomplished by the coadministration of 30 or 40 Ml. of diodrast which will depress tubular elimination and prolong the action about 75 per cent. Para-aminohippuric acid acts in a similar manner.

MECHANISM OF ACTION.—Penicillin inhibits reproduction (division) of bacteria by combining with some enzyme sulfhydryl group and inhibiting tissue respiration-carbohydrate cycle of bacteria. The penicillin is not destroyed or "used-up" in this reaction. Penicillin is more active in a good medium where the reproduction rate is high. The effects of the agent can be reversed or antagonized by the addition of cysteine and other sources of sulfhydryl groups. The host develops no resistance to reinfection if the causative organism is killed with penicillin.

POTENTIATION.—Some synergism exists between penicillin and the sulfonamides. Refractive microorganisms sometimes may be made more sensitive to the agent by feeding methionine in large quantities.

ANTAGONISM.—As with the sulfonamides, drug resistant or drug-fast organisms are developed; however, no cross tolerance of organism to penicillin and the sulfonamides both is developed. Some organisms (particularly gram-negative) possess an enzyme, penicillinase, that destroys the drug rapidly and resistant *Staphylococci* possess some sort of penicillin-inactivator. Unlike the sulfonamides, penicillin is not antagonized by local anesthetics, para-aminobenzoic acid, serum, pus, blood, peptone or other tissue autolysates, or cationic detergents like "phemerol" or "zephiran."

THERAPEUTIC USE

MAN.—Penicillin is indicated in all staphylococcic, clostridial, hemolytic or anaerobic streptococcic, pneumococcic, gonococcic, and meningococcic infections. Also, yaws, anthrax, Vincent's disease, syphilis, diphtheria, rat-bite fever, and some cases of actinomycosis and bacterial endocarditis respond favorably.

ANIMAL.—It is particularly indicated for bovine mastitis and leptospirosis in dogs, but other conditions due to penicillin sensitive organisms may be successfully treated.

AVERAGE DOSE.—For intermittant intramuscular injections at three hour intervals, concentrations of 10,000 to 50,000 units per cc. of physiological saline are desirable. The minimum daily dose should not be less than 100,000 units and in serious infections with or without bacteremia or caused by resistant organisms, the daily dose should be two to five times this amount. Administration should be continued until there are no signs of active infection. Ten thousand units in 250 cc. saline may be given per hour by continuous intravenous drip. Dilutions of 250 to 500 units per cc. are used for topical application, but ten times this concentration is used for instillation into empyema or abscess cavities. In meningitis, 10,000 units in 10 cc. saline are given intrathecally every twelve hours as well as concurrent systemic administration.

TOXIC EFFECTS.—Large intravenous doses cause increased coagulability of the blood and thrombus formation. About 3 per cent of patients will show delayed allergic responses which are usually urticarial. Staphylococcic skin infections often flare seriously. Penicillin is sometimes fatal on the first dose in syphilis due to a massive Herxheimer phenomenon (particularly in children). In general, penicillin has a very low toxicity, far lower than any of the sulfonamides.

OUTLINE PHARMACOLOGY OF STREPTOMYCIN

HISTORY.—1919. Waksman isolated a soil microörganism, *Actinomyces griseus* (now known as *Streptomyces griseus*), which is a unicellular organism that produces aerial mycelia and also sporulates.

1944. Schatz, Bugie, and Waksman grew organism and isolated crude streptomycin concentrates.

1945. Fried and Wintersteiner prepared crystalline streptomycin reineskate. Kuehl, Peck, Walti and Folkers prepared crystalline streptomycin. The elucidation of the structure is being currently published.

SOURCE.—Cultures grown on meat extracts (peptone or tryptone) or corn steep liquor media are adsorbed with activated carbon; the streptomycin eluted with methanolic hydrogen chloride and precipitated with ether. The crude material is further purified by chromatography on alumina columns or by crystallization of the reineckate or helianthate from methanol.

CHEMISTRY.—Streptomycin ($C_{21}H_{37}O_{12}N_7$) is a glycoside of streptidine ($C_8H_{17}O_4N_6$, tetrahydroxycyclohexyldiguanidine), and a disaccharide, streptobiosamine ($C_{13}H_{21}O_9N$, which yields a methylaminohexose and maltol, $C_6H_6O_3$, on hydrolysis).

OCCURRENCE AND STABILITY.—The hydrochloride, sulfate, and reineckate are known as well as the dye salts with orange II and methyl

orange. Preparations kept at 25°C. with 3 per cent moisture and at pH 6-7.5 have lost no activity in a year. Aqueous solutions are stable, but it is recommended that material for intravenous injection be made up just prior to use.

BIOASSAY AND STANDARDIZATION.—The Waksman S unit is that amount of material which will inhibit the growth of a standard strain of *E. coli* in 1 Ml. of nutrient broth or other suitable medium. Clinical procedures use *S. aureus*, *B. megatherium*, or *B. circulans* as test organisms in modified penicylinder and Fleming slide cell assays. The official unit is now equivalent to one microgram of pure base. Streptomycin hydrochloride has about eight hundred such units per milligram. The agent may be determined chemically by hydrolysis with sodium hydroxide and determining the maltol formed colorimetrically or by absorption spectra technique (maltol gives a brilliant violet color with ferric chloride). Waksman suggested L units (1000 S units) and G units (1,000,000 S units) to rationalize dosage figures but this is unnecessary since the definition of activity on a weight basis.

LOCAL ACTION.—The agent is bacteriostatic and bacteriocidal against gram-negative wound infections. It is not painful on local application. Of lower activity than penicillin, being effective at dilutions of only 1:100,000 instead of one to several million, it is comparable with gentian violet (1:800,000) and "zephiran" (1:40,000).

SYSTEMIC ACTION.—As an antibacterial (bacteriostatic and bacteriocidal) agent, it is primarily active against gram-negative organisms. About eight million molecules of streptomycin are required to inhibit one *S. aureus*, as compared with one million of penicillin, and ten billion of sulfanilamide. Streptomycin produces a fall in blood pressure that may be due to histamine-like impurities, but it has no demonstrable effect on the hemopoetic system, or liver or kidneys.

ABSORPTION AND DISTRIBUTION

ORAL AND TOPICAL ADMINISTRATION.—Unlike penicillin, it is not destroyed in the gastrointestinal tract, but it is not effectively absorbed either (maximum about 3 per cent aborbed). In fact, it is not usually absorbed from any mucous membrane unless it is abraded, although it can be given by iontophoresis. However, it may be nebulized for pulmonary infections.

PARENTERAL ADMINISTRATION.—The intravenous administration of 7500 units/kgm. produces a blood level of 30 units/Ml. immediately and distribution to all body fluids (including the eye and amniotic) although only poorly to uninfected spinal fluid. Subcutaneous administration produces a maximum blood level in about fifteen minutes, while intramuscular administration produces a maximum in about thirty minutes. Prolonged maintenance of high blood levels is best accomplished with intramuscular drip. The agent may be given intrathecally and into empyema and abscess cavities if indicated.

FATE AND EXCRETION.—After systemic administration, fifty to eighty per cent is excreted unchanged into the urine in twenty-four hours. Some is conjugated with cysteine. The bile level is slightly more concentrated than the blood level. The rate of excretion is dependent directly on dose and route of administration. After 7500 units/kgm. intravenously, the blood level drops from thirty to three units/Ml. in four hours. By repeating intramuscular injections every three hours, therapeutically certain effective blood levels of three to eighteen units/Ml. can be maintained. One gram (one million units) per day will give urine levels of about 600 units/Ml. and this is more than enough to kill any bacteria known to get in the urinary tract.

PROLONGATION AND POTENTIATION OF ACTION.—There has been thus far no adequate published data on delayed absorption and excreation for prolongation of action, but one can predict that delayed intramuscular absorption can be accomplished in much the same way as with penicillin (epinephrine and other vasoconstrictor sympathomimetic amines, protein adsorbates, beeswax, peanut oil, cold applications). As yet it is questionable that the effects of the agent can be potentiated, because very few other agents act on gram-negative organisms. Certainly there is no apparent potentiation of the action of streptomycin by penicillin or sulfadiazine.

MECHANISM OF ACTION.—Streptomycin inhibits organisms by combining with them directly and is destroyed in the process. Unlike penicillin, the less rapid the rate of growth, and the poorer the medium, the more effective is streptomycin. Like the sulfonamides and unlike penicillin, it is inhibited by brain-heart infusions in culture work. The action of streptomycin is antagonized by cysteine and other SH-containing compounds, but this can be reversed

by iodine. Undoubtedly streptomycin acts by combining with the sulfhydryl (SH) groups of some bacterial essential respiratory enzyme much as does oxophenarsine ("mapharsen"). Penicillin acts similarly as do most of the other antibiotics except gramicidin which interferes with phosphorylation and tyrocidine which is surface active.

THERAPEUTIC USE

MAN.—Streptomycin is of definite value in the treatment of: (1) urinary tract infections of *S. fecalis*, *Ps. aeruginosa*, and in general gram-negative organisms, (2) tularemia (*Pasteurella tularensis*), (3) Klebsiella pneumonia (*Friedlander's bacillus*), (4) Hemophilus influenzae meningitis (and other gram-negative meningitis, (5) acute bacteremia or septicemia due to gram-negative bacilli (*E. coli*, *A. aerogenes*, *Ps. aeruginosa*, and *Proteus ammoniae*), (6) gram-negative bronchiectasis (*Klebsiella pneumoniae*, *Paracolon bacillus*, *Ps. aeruginosa*, *E. coli*), and (7) *Salmonella* infections (systemic and enteric). It may be of value for: Weil's disease (*Leptospira icterohemorrhagiae*), relapsing fever (*Borrelia novyi*), and tuberculosis. Acute tuberculosis lesions clear and heal readily, but chronic fibrocaseous lesions may never heal. Tuberculosis of the kidney has been cleared in two to four weeks, as has tuberculous lymphadenitis, but tuberculous empyema has been discouraging, and laryngeal tuberculosis is still questionable. Astronomic dose levels are required for any type of tuberculous lesion, but the material still has about ten times the safety factor of "promin," one of the few sulfonamides effective against tuberculosis. Streptomycin is of very questionable value in typhoid, brucellosis, syphilis, and against most pathogenic fungi, but this may be due to the small amounts of drug that have been available until recently. It is of no value in tetanus or malaria.

ANIMAL.—Streptomycin appears of great economic importance for the treatment of: all *Pasteurellas* (fowl cholera, hemorrhagic septicemia in cattle and sheep, rabbit fever, and swine plague), all *Salmonellas* ("white scours" in calves; *S. aertrycke* in pigeons, ducks, chickens, and turkeys; "keel" in ducklings. "white diarrhea" in chicks, and fowl typhoid), and all *Clostridia* (blackleg, braxy, dysentery, "black disease" in sheep; and blackleg and "red water" in cattle).

AVERAGE DOSE (MAN).—Not less than 250 mg. intramuscularly should be given every six hours for five to ten days. The higher the dose level that can be maintained, the better, as many organisms develop resistance rapidly. Up to 50 mg. can be given intrathecally every twenty-four hours in meningitis. Dilutions of 250 to 500 micrograms/milliliter are recommended for topical application.

TOXIC EFFECTS.—Fainting, severe headache, dizziness and nausea are common. Chills, fever, toxic erythema, and urticarial eruptions may occur. Involvement of the eighth cranial nerve may occur on prolonged administration. All are due apparently to histamine-like impurities in commercial preparations. The presently available material is considerably less toxic than earlier preparations. The effects are most severe on intravenous and least on intramuscular administration. In general, the therapeutic index is very high and the agent is of great value against infections by certain organisms for which adequate treatment has been lacking.

CONCLUSIONS

The future of the antibiotics is certain. What the new developments are to be is questionable, but the possibilities are great and almost endless. Fleming himself does not believe that penicillin will be the only clinically important antibiotic or even the best. We have two agents, penicillin and streptomycin, which will control infections by most of the gram-positive and gram-negative infections for which there was little or no treatment ten years ago. As yet, the problems of the virus infections and the walled-in chronic infections are to be solved.

BIBLIOGRAPHY

Aside from extensive worthwhile publications in medical, chemical, and other scientific journals, three comprehensive monographs are available. The first of these is the classic work in the field and is of interest to the general scientific worker as well as the clinician, while the other two are specifically written for the clinician.

"Microbial Antagonisms and Antibiotic Substances," S. A. Waksman, Commonwealth Fund, New York, 1945.

"Penicillin Therapy, Including Tyrothricin and Other Antibiotic Therapy," J. A. Kolmer, New York, 1945, Appleton-Century.

"Penicillin and Other Antibiotic Agents," W. E. Herrell, Philadelphia, 1945, W. B. Saunders Co.

LIFE'S DIFFICULT CHAPTER

To know how to grow old is the master work of wisdom. At what age is our view clearest, our eye truest? Surely in old age, before the infirmities come which weaken or embitter. The old man who is at once sympathetic and disinterested, necessarily develops the spirit of contemplation and it is given to the spirit of contemplation to see things most truly.—Amiel's Journal, as reported in Geriatrics.

The President's Page

On July 26, 1945, Senator Claude Pepper, of Florida, introduced a bill (S. 1318) in the Senate "to provide for the general welfare by enabling the several states to make more adequate provisions for the health and welfare of mothers and children and for services to crippled children and for other purposes." The bill was referred to the Committee on Education and Labor, and it is expected that hearings will soon be arranged.

This bill should be read carefully by every physician. Copies may be obtained by writing to Senator Harley M. Kilgore or Senator Chapman Revercomb.

At the time of the introduction of the bill, Senator Pepper said in part: "The war has given us irrefutable proof that a nation which neglects the health and welfare of its children does so at its own peril," and, "indifference to what happens to children sooner or later strikes at the very life of the nation." And again, "the nation's greatness in peace is measured by the opportunities open to its citizens for health, personal satisfaction, and the exercise of social responsibility. These opportunities can be assured only if children have their full chance for physical, mental and emotional growth and well-being."

The Children's Bureau, in a directive having the full force of law, presented us with the Emergency Maternal and Infant Care program, which most of us have whole-heartedly supported because of the patriotic factor involved. Many physicians objected to the rulings connected with the E. M. I. C. program, such as the fixing of arbitrary fees for our services. Many of us objected to it on account of the extension of the services to all women regardless of economic status. However, the program was accepted with the full assurance that it would cease to exist six months after the close of the war.

I have purposely quoted from Senator Pepper's introductory remarks in order to emphasize a further appeal to our patriotism. I am opposed to the bill because it provides that: "these services shall be available to all who elect to participate in them, regardless of race, creed, color, place of residence, or national origin." This is an ill-advised program which, if enacted without regard for economic status, will cause a vast unnecessary waste of public funds.

Admittedly, there is much good in the proposed legislation. However, we as physicians, with the help of a considerable segment of the public, are trying to improve facilities and raise standards for good medical care, not only for women and children, but for all the people of West Virginia. It should be the function of governmental agencies to assist and support private enterprise rather than to initiate a program which may antagonize the profession and threaten to supplant what the people are trying to provide for themselves.

I am one of those who feel that if we expended as much fury and energy in supplying good medical care as we expend fighting legislative proposals for improving medical service, there would be no need for such legislation. Moreover, I do not feel the public will accept the type of national health Senator Pepper proposes as an answer to the intricacies of their health problems today.

Andrew E. Quick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journal, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

CANCER CONTROL

West Virginia is fortunate in having two organizations devoting all their efforts toward cancer control: an active private agency that depends for its support on the voluntary contributions of the citizens, and a tax supported official agency. With the combined and coöperative efforts of the West Virginia Field Army and the Division of Cancer Control much progress is being made in cancer education.

Annually, during the month of April, which is designated by Presidential proclamation as the official cancer control month, the Field Army of the American Cancer Society conducts an intensive educational and fund-raising campaign. Part of the funds thus raised are utilized by the American Cancer Society in its program of education, cancer research and service to the cancer patient, while the remaining portion is retained by the respective counties for local projects. In several instances where money was available through this organization and with the recognition of the need by both organizations definite projects are in operation which are contributing to the control of cancer.

The West Virginia Field Army, with organizations in practically every county of the state, has coöperated to the fullest extent with the efforts of the Division of Cancer Control.

The Division of Cancer Control, made possible by legislation enacted in 1943, has been actively engaged in cancer control activities since July 1, 1944, when the division became fully operative. West Virginia's Cancer Law makes provision for a four-point program: (1) Education, (2) Establishment of tumor clinics, (3) Tissue diagnostic service for needy patients, (4) Care of needy cancer patients. An annual appropriation of $50,000 is provided to carry out the provisions of the law. During the first eighteen months of the active treatment program, 817 cases have been referred, a number far greater than was anticipated at the time the program was inaugurated. Of this number, only 34 cases have proved to be nonmalignant.

In any program of cancer control the doctor occupies the key position and the support of both agencies by the doctors of West Virginia is essential for the continuation of this success.

A JOB WELL DONE

The story of Dr. MacKinnon will find a lasting place among the legends of selfless service to humanity. It came to the attention of the nation through press and radio when his community, Prentice, Wisconsin, declared a holiday in his honor and presented him with a new car, and numerous other gifts to show its appreciation.

Dr. MacKinnon is a country doctor. For thirty years he has been ministering to farmers, lumberjacks, villagers and Indians of the Wisconsin north woods. He has never been known to turn down a call. Sometimes his work of mercy would take him twenty or thirty miles through the night in all kinds of weather to comfort his patients, and to nurse them back to health. Under trying conditions in his years of practice he has delivered more than 2,900 babies into the world. The unique characteristic of this man is that he has never sent out a bill, which was one reason why his community turned out en masse to pay him tribute. According to the stories, he was overwhelmed by his 'surprise party.' And well he might have been. Families came from far and near to celebrate with him. Everybody, including those whom he had brought into the world, paraded through the streets, some in uniforms, some in civilian clothes, some still in diapers. The festivities were

brought to an end when the doctor had to respond to a hurried call—to deliver another baby.

A story like the above holds a moral. It reveals stronger than any fine-spun argument, the meaning of the doctor-patient relationship that American doctors insist is so important to the success of medical care. It is this doctor-patient relationship that the medical profession is mortally certain will be destroyed if our nation adopts what is popularly termed socialized medicine. The problem is how to spread more of Dr. MacKinnon's kind of care to more people. It cannot be done by compulsory regimentation.—Clarksburg Telegram.

"HEAP BIG MEDICINE MAN"

In the February issue of the Journal of the Oklahoma State Medical Association, our good Brother Moorman uses the above Pawnee palaver headline for an editorial ridiculing the compulsory sickness insurance plan now being urged by the leftist group in Washington. His style is so incisive, his wit so keen, and his diction so exact that we quote the article in its entirety:

"Under the Wagner-Murray-Dingell Bill the Social Security Administrator would carry the responsibility of giving medical, dental, laboratory, hospital and nursing service to 130 million people with the expenditure of approximately four billion dollars.

"As though in response to an oracle from the Sibylline Books, the Social Security Administrator would stand forth as did Aesculapius of old. Behold the brave new god in a brave new world. How wonderful to get back to the cloying gods without the confusing clouds of Olympus!

"Armed with man-made omnipotence, through powers delegated to otherwise important lesser gods including the Surgeon General of the Public Health Service who could not make an important decision without approval of the Social Security Administrator, he would prescribe for his people throughout the expanding peripheries of his domain, bringing health to his helpless suppliants shackled by the shekels snatched from their thrift for the support of his throne. Every individual who learns through loss of freedom that there is no god but the Administrator, should face his mecca, bow down to earth and in sack cloth and ashes confess his bitter faith.

"Before this happens every individual with a grain of common sense will pray to his own god for protection against such a violation of good government."

"GERIATRICS". A NEWCOMER

We extend to the American Geriatrics Society our congratulations upon the issue of its official Journal, Geriatrics. This magazine—a bimonthly—is "devoted to research and clinical study of the diseases and processes of the aged and ageing." Although sporadic articles and volumes upon ageing have appeared now and then ever since Cicero wrote De Senectute, it is only within very recent years that any systematic scientific investigation of gerontology has been initiated. The ever increasing life span and the proportionate increase in the ageing segment of the American population demand intensive study of ageing processes and the diseases incident to senescence. The increasing magnitude of the problem of the aged may be grasped when we consider that during the census decade of 1930-40 the number of individuals who had attained the age of 65 increased 35%, whereas the increase in the total population was only 7.2%. Hence, we welcome Geriatrics into the field of Aesculapian journalism.

Dr. A. E. Hedback, of Minneapolis, is the editor, and if he keeps succeeding issues up to the standard of the first, he will, in the vernacular of the street, be "going some." The format is very attractive and the scientific articles are excellent. Not the least attractive section of the magazine is "Digests from Current Literature," each of which is done briefly, concisely and attractively.

Again welcome, newcomer! May a long, pleasant and constructive life be your lot!

REHABILITATION DINNER MAY 14

Dr. Benjamin I. Golden, of Elkins, chairman of the Medical Advisory Committee of the American Legion, Department of West Virginia, is arranging a "Rehabilitation Dinner" sponsored by the American Legion for the second day of the 79th annual meeting of the State Medical Association at Huntington. The dinner, which will be a subscription affair, will be held at the Prichard Hotel, Tuesday evening, May 14, at 6 P. M., and all of the members of the State Medical Association are invited to attend.

Short addresses will be delivered by Dr. Donald A. Covalt, Assistant Medical Director of the Veterans Administration; Dr. Leonard G. Rowntree, Chief Medical Advisor of the American Legion; and Dr. H. D. Shapiro, Senior Medical Consultant.

Matters concerning the rehabilitation of returning veterans of World War II will be discussed, and a short report submitted concerning the progress of the program in West Virginia. Reservations for the dinner will be made at the Hotel Prichard on Sunday and Monday, May 12-13, 1946.

General News

RECORD ATTENDANCE POSSIBLE AT 79TH ANNUAL MEETING AT HUNTINGTON

The demand for reservations for rooms at Huntington for the 79th annual meeting of the West Virginia State Medical Association indicates that if sufficient rooms are available all records for professional attendance will be broken. With practically one hundred per cent sell-out of available space at hotels, plans are now being made to obtain additional accommodations both at hotels and elsewhere in the city.

ROOM RESERVATIONS

Doctors who have failed to obtain reservations for rooms at the annual meeting at Huntington in May are requested to file applications immediately with Dr. James S. Klumpp, West Virginia Building, Huntington, chairman of the committee on local arrangements. Every effort will be made to provide satisfactory accommodations for all those who wish to attend the meeting.

The program, which has been prepared by Dr. William R. Laird, Chairman, and Drs. Herbert M. Beddow and Raymond Sloan, members of the Scientific Work Committee, will undoubtedly be one of the best ever presented at an annual meeting.

Among the speakers who have already accepted invitations to appear on the program are the following:

Tentative Program

Dr. R. Glen Spurling, Clinical Professor of Surgery (Neuro) at the University of Louisville School of Medicine, Louisville; George Robert Chobot, Assistant Clinical Professor of Pediatrics at Columbia University, New York City; Chevalier L. Jackson, Professor of Broncho-Esophagology, at Temple University School of Medicine, Philadelphia; Ralph Adams, general and thoracic surgeon at the Lahey Clinic, Boston; Col. J. E. Ash, Director of the Army Institute of Pathology, Washington, D. C.; Dr. John E. Cannaday, Charleston; Ray M. Bobbitt and Ivan R. Harwood, urologists, of Huntington; Andrew C. Ivy, Nathan Smith Davis Professor of Physiology at Northwestern University Medical School, Chicago; Frank H. Krusen, of the Mayo Clinic, chief consultant in physical medicine to the Veterans Administration.

A. C. Corcoran, of the Research Division of the Cleveland Clinic; J. Morrison Hutcheson, Professor of Clinical Medicine, Medical College of Virginia, Richmond; Major Victor Kugel, MC, cardiologist, Ashford General Hospital, White Sulphur Springs; Major Howard A. Swart, chief of the orthopedic section, Newton D. Baker General Hospital, Martinsburg; and Dr. Thaddeus L. Montgomery, Professor of Obstetrics and Gynecology, at Temple University, Philadelphia.

Governor Clarence W. Meadows will deliver an address at one of the evening sessions. Dr. Hugh A. Bailey, of Charleston, will deliver the Oration in Surgery, and Dr. W. M. Sheppe, of Wheeling Clinic, Wheeling, the Oration in Medicine.

The full program will be printed in the May issue of the Journal, together with information concerning luncheons, entertainment, etc.

Movies

It is probable that continuous movies will be shown in a room on the mezzanine at the Prichard, and selected films will be obtained from the American Medical Association and other sources.

Golf Tournament

A golf tournament will be held at the Guyandotte Country Club Monday through Wednesday. Doctors are requested to bring certified copies of handicaps from their own clubs. Prizes will be awarded for low net and low gross scores. The tournament will be in charge of Dr. W. B. Hunter and Dr. J. R. Brown.

An invitation to attend the meeting has been extended to doctors residing in all nearby Kentucky and Ohio cities, and a heavy out-of-state registration is expected.

ROWLEY CLINIC ACCEPTED

The Rowley Clinic and Hospital, at Huntington, has been accepted by the Council on Medical Education and Hospitals of the American Medical Association for recognition as a registered hospital.

VFW VICTORY ENCAMPMENT

A Victory Encampment of the Veterans of Foreign Wars, Department of West Virginia, will be held at Parkersburg, June 27-29, 1946.

DR. McNAIRY HEADS MEDICAL CENTER

Dr. Donald J. McNairy, USPHS, who has been in charge of the rapid treatment center, in Norfolk, Virginia, has been assigned as medical officer in charge of the Kanawha Valley Medical Center, at South Charleston. He succeeds Dr. Robert D. Wright, who was transferred to the U. S. Public Health Service Laboratory, at Staten Island, New York.

Since the establishment of Kanawha Valley Medical Center on March 6, 1944, over 6,000 patients have received treatment for syphilis, gonorrhea and other venereal infections.

NEW MEMBER OF COUNCIL

Dr. A. R. Sidell, of Williamstown, has been appointed by Dr. Andrew E. Amick, president of the West Virginia State Medical Association, as a member of the Council to succeed Dr. Curtis P. Artz, of Grantsville, who resigned when he accepted a three-year residency in surgery at Ohio State University Hospital, at Columbus.

VETERANS CARE PROGRAM ALREADY APPROVED BY OVER 500 DOCTORS

The program of the West Virginia State Medical Association for medical care of veterans in their home communities has already been approved by over 500 members who have agreed to participate as fee-designated physicians. The list includes general practitioners and specialists in every field, and a recapitulation and breakdown of participating doctors by counties is now being made for the Veterans Administration at Washington.

The committee in charge of the program is composed of Dr. Claude B. Smith, Charleston, chairman, and Drs. Thomas L. Harris, Parkersburg, C. O. Post, Clarksburg, Ralph J. Jones, Charleston, and Francis A. Scott, Huntington. The program outlined by the committee has been approved unanimously by the Council, and it is expected that complete plans will be ready for submission to the Veterans Administration by the first of April. It is hoped to have the new program in operation by early summer.

PROGRAM MAILED TO MEMBERS

A copy of the program and fee schedule prepared for use in connection with veterans' care in West Virginia has been mailed to each member of the State Medical Association. If the program has not been received, duplicate copies may be obtained by writing the headquarters office, Box 1031, Charleston 24, West Va.

Cards indicating acceptance of the program are still being received in considerable numbers at the headquarters office of the State Medical Association and it is now known that every county in the state will be represented.

Additional names will be added to the master list as received, but the charter list will go to the Veterans Administration just as soon as the program is finally approved in Washington.

DR. G. G. IRWIN HONORED

Dr. G. G. Irwin, of Charleston, was elected vice president of the Mid-Atlantic section of the American Urological Association at the annual meeting held at Atlantic City, on March 20. Dr. Ralph M. LeComte, of Washington, D. C., was elected president.

RURAL HEALTH CONFERENCE

Dr. Ira F. Hartman, of Buckhannon, chairman of the Committee on Rural Medical Service of the West Virginia State Medical Association, is in Chicago attending the first annual meeting of the National Conference on Rural Health, sponsored by the American Medical Association in cooperation with the American Farm Bureau Federation and other farm groups.

The conference was called primarily to work out a program with farm groups and rural health activities. The matter of construction of needed hospitals in rural communities under the proposed Hill-Burton bill will also be discussed, and the principal speaker at a luncheon on March 30 will be Congressman J. Percy Priest, of Tennessee.

STATE MEDICAL ASSOCIATION TO BE REPRESENTED AT WASHINGTON HEARING

Hearings on the Wagner-Murray-Dingell bill (S. 1606), originally scheduled to begin on March 18, will get under way before the Senate Committee on Education and Labor at Washington, April 2. The American Medical Association has been invited to have witnesses appear before the committee on April 17, and the various state organizations are preparing to send representatives to Washington at that time.

Drs. Ray M. Bobbitt of Huntington and D. A. MacGregor of Wheeling who represented the State Medical Association at a meeting of the National Physicians Committee at St. Louis, January 18-19, expect to be in Washington at that time. Other members of the State Medical Association who have been selected to attend the hearings and testify before the committee are: Bert Bradford, Jr., of Charleston, William R. Laird, of Montgomery, Frank V. Langfitt, of Clarksburg, Thomas L. Harris, of Parkersburg, and J. P. McMullen, of Wellsburg.

The State Medical Association has requested time for the appearance of its members at the Washington hearings, and it is expected that the representatives will be afforded time in proportion to the number seeking appearance before the committee. Those who are not heard directly will be given the opportunity to present their arguments in writing for inclusion in the record.

At the St. Louis meeting which was attended by Drs. Bobbitt and MacGregor, there was full discussion of all the medical legislation that is being proposed in Congress. The meeting was attended by representatives from every state except three.

The NPC and representatives of the AMA are making preparations to oppose the bill before the committee, particularly Title II which relates to compulsory health insurance. It is expected that the Council of the State Medical Association and the doctors selected to represent the State Medical Association at the hearings will endeavor to arrange a conference in Washington or some place in the state with the United States Senators and Congressmen from West Virginia before the bill is acted upon in committee.

SCIENTIFIC EXHIBITS ARRANGED

The committee on Scientific Exhibit for the annual meeting at Huntington in May has allotted all space available at the Prichard Hotel to hospitals, clinics, and individual doctors. Scientific exhibits will be set up in the Bridge Room, and parts of the mezzanine will be used for wall displays. The committee is composed of Drs. Hu C. Myers, chairman, Philippi, C. C. Fenton, Morgantown, and C. B. Wright, Huntington.

COUNCIL CLEARS HEAVY CALENDAR AT REGULAR MID-WINTER MEETING

The program of the West Virginia State Medical Association under which it is expected that outpatient care of veterans will be provided in their home communities was described in detail by Dr. Claude B. Smith, chairman of the Veterans Affairs Committee, at a meeting of the council held at Parkersburg, February 24, 1946. Doctor Smith was appointed chairman of the committee by Dr. Andrew E. Amick, the president, who also named as members Drs. Thomas L. Harris, Cecil O. Post, Francis A. Scott and Ralph J. Jones.

VA Committee Approved

The committee was named after a poll of the Council by letter, and this action was ratified formally at the Parkersburg meeting.

The program was also discussed by Dr. Thomas L. Harris, and he and Dr. Smith reported that a meeting had been held at Washington with Col. James C. Harding, acting director of the Out-Patient Service of the Veterans Administration. The committee drafted a fee schedule and a program for this service in West Virginia, which was presented to the Council and unanimously approved.

The executive secretary was directed to send a letter to each member of the State Medical Association explaining the program submitted by the committee and approved by the Council, and enclosing a copy of the proposed fee schedule. A reply postcard indicating acceptance of the program was ordered sent to each member for his signature.

NPC Program

Dr. D. A. MacGregor, who with Dr. Ray M. Bobbitt, was appointed by Dr. Amick to attend a meeting of State Medical Association representatives sponsored by the National Physicians Committee at St. Louis late in January, submitted a report of the meeting. The report was in the nature of a paper prepared for presentation before the Ohio County Medical Society. It was ordered that the Publication Committee be requested to publish the paper in the April issue of the West Virginia Medical Journal.*

Seek to Speed Approval

Dr. Katherine Cox, director of the State Hygienic Laboratory at Charleston, and Dr. F. C. Hodges, of Huntington, member of the advisory committee on approval of laboratories, appeared before the Council to discuss the matter of approval of technicians and laboratories. This appearance was arranged in view of the action of the Council at a previous meeting in recommending to the Public Health Council "that immediate approval be granted to laboratory technicians who qualify by passing successfully the standard serological tests required by the State Hygienic Laboratory, or qualify in tests at the State Hygienic Laboratory, to perform serological tests as required by statute, and that the laboratory be approved along with the technician."

After full discussion of the present regulations, it was ordered that a sub-committee be appointed by the chairman to meet with the director and members of the advisory committee to endeavor to work out a plan for the temporary approval of laboratories pending completion of annual tests. The committee appointed by the chairman is composed of Dr. Thomas G. Reed, chairman, and Drs. Guy H. Michael and J. L. Patterson.

The following resolution, presented by Dr. Patterson, was unanimously adopted:

> "Whereas, the Public Health Council of the State of West Virginia requires applicants for licensure by reciprocity to have academic degrees; and,
>
> "Whereas, there are a number of doctors returning from service with the armed forces of the United States who do not have academic degrees, but who are desirous of being licensed to practice medicine in the State of West Virginia, and who, because of their lack of contact with common medical problems while in the military service, do not feel that they are capable of passing an examination for licensure;
>
> "Therefore, Be It Resolved: That the Public Health Council of West Virginia, be requested by the Council of the West Virginia State Medical Association to waive the requirements of an academic degree for licensure by reciprocity for doctors who have served in the armed forces of the United States, providing the other requirements for licensure are met."

CMAB Operative Principles

The revised operative principles for the management of the Cooperative Medical Advertising Bureau were read by the executive secretary and unanimously approved.

It was ordered that arrangements be made with the Master Reporting Company at Washington to report the proceedings of the meeting to be held in Huntington, May 13-15, 1946.

The chairman appointed the following committee to prepare a schedule of x-ray fees to be included in the revised fee schedule recently approved by the Council and submitted to the Workmen's Compensation Commissioner for his consideration and approval: Dr. J. E. Wilson, Clarksburg, chairman; Dr. R. H. Boice, Parkersburg, and Dr. V. L. Peterson, Charleston.

The Council directed that the West Virginia State Medical Association join the group of states heretofore accepting membership in the "Conference of Presidents and Other Officers of State Medical Societies."

Honorary Members

The following members of the State Medical Association were elected to honorary life membership:

Dr. Benj. M. Stout, Morgantown
Dr. W. M. Riley, Lillybrook
Dr. Robert Wriston, Beckley
Dr. R. C. Mitchell, Sabine
Dr. L. E. Steele, Logan

*Dr. MacGregor's paper is printed in this issue of the Journal.

The meeting was attended by Dr. Thomas L. Harris, Chairman; Drs. Carl E. Johnson, Thomas G. Reed, Guy H. Michael, J. E. Wilson, B. S. Brake, J. L. Patterson, R. D. Gill, E. A. Trinkle, John P. Helmick, Councillors, and Mr. Charles Lively, secretary ex officio. The meeting was also attended by Dr. Claude B. Smith and Dr. D. A. MacGregor.

RELOCATIONS

Dr. J. O. Williams has moved from Ameagle to Amigo, where he is engaged in industrial practice.

* * *

Dr. Arthur J. Viehman, of Huntington, has accepted the position of assistant superintendent at the Julius Marks Sanitarium, in Lexington, Kentucky. He will assume his new duties there on April 1.

* * *

Dr. Hugh S. Edwards, who was formerly connected with Pinecrest Sanitarium, at Beckley, is now on the staff of the State Sanitarium, at Glencliff, New Hampshire.

* * *

Dr. J. K. Pickens, of Layland, is now in Denver, Colorado, and expects to relocate for the practice of medicine at Fort Dodge, Iowa.

* * *

Dr. E. R. Cooper, of Troy, formerly connected with the Weston State Hospital, is now on the staff at Southwestern State Hospital, in Marion, Virginia.

COL. ASH AWARDED LEGION OF MERIT

Colonel James E. Ash, director of the Army Medical Museum, at Washington, who will be one of the speakers at the annual meeting of the State Medical Association, at Huntington, May 13-15, 1946, has been awarded the Legion of Merit by Major Gen. Norman T. Kirk, Surgeon General of the Army.

The citation states that Colonel Ash "organized the most extensive tissue pathology service ever known to the world. The photographic and art service of the Museum was developed, which amassed a wealth of visual material—over 40,000 black and white photographs, over 4,000 kodachromes, and over 50,000 feet of colored movies."

NEW BUREAU HEAD

Dr. Charles Calhoun Hodges, who began his public health career in West Virginia in 1923, has been appointed by Dr. J. E. Offner, state health commissioner, as director of the bureau of communicable diseases. Dr. Robert L. Smith, of the bureau of tuberculosis, has been serving as acting director in the place of Dr. J. T. Duncan, resigned.

Doctor Hodges has been located at Santa Rosa, California, since May 1935, where he has been director of health and hospitals. Previously, he had served as assistant medical director at Johns Hopkins Hospital, Baltimore, and as superintendent at several New York hospitals.

PROPOSED AMENDMENT TO THE CONSTITUTION

The following amendment to the constitution of the West Virginia State Medical Association, sponsored by the Cabell County Medical Society and offered at the annual meeting of the House of Delegates at Clarksburg, May 14, 1945, will be submitted to the House of Delegates for final action at the 79th annual meeting at Huntington in May:

Article IV.

Section 1. Amend section so as to read as follows:

"This Association shall consist of active members, affiliate members, delegates and guests." (The constitution does not now provide for affiliate membership.)

Section 2. Amend the section so as to read as follows:

"Active members. The active members of this Association shall be the active members of the component medical societies. Active membership shall be limited to regular practicing physicians who are duly licensed to practice medicine and surgery in West Virginia."

Amend article by adding a new section as follows:

"Section 3. Affiliate membership. Physicians who are not qualified for licensure in West Virginia, but who are graduates of medical schools with the degree of M. D., shall, with the approval of the Council, be eligible for election to affiliate membership in component societies. Duly elected affiliate members shall have all the rights, privileges, and duties of active members, except the right to vote and to hold office, and the duty to pay dues."

Renumber as sections 4 and 5 present sections 3 and 4, respectively.

REFRESHER COURSE IN PEDIATRICS

The Michael Reese Hospital Post Graduate School, with the cooperation of the members of the Department of Pediatrics, University of Chicago and Loyola University School of Medicine, offers a refresher course in Pediatrics, at the Michael Reese Hospital, in Chicago, May 1-29, 1946. Tuition will be $100.00. Inquiries should be addressed to Dr. Samuel Soskin, Dean, 29th Street & Ellis Avenue, Chicago 16, Illinois.

ANNUAL CONTEST

The American Association of Obstetricians, Gynecologists and Abdominal Surgeons Foundation announces that the annual prize contest will be conducted again this year. For information address, Dr. James R. Bloss, Secretary, 418 Eleventh Street, Huntington 1, West Virginia.

COUNCIL CONSIDERS LEGISLATION AT SPECIAL MEETING MARCH 10

Dr. R. J. Wilkinson, chairman of the doctor members of the advisory committee to the Legislative Interim Committee studying public health matters, appeared before the Council of the State Medical Association at a special meeting held at Parkersburg, March 10, to urge approval of the bill drafted by the committee regulating medical and hospital service plans. He stated that the bill had been printed in final form and would be introduced at the special session of the legislature which convenes on March 18. After full discussion by members of the council, the bill as drafted was unanimously approved and the executive secretary was directed to obtain and send a copy of the bill to each member of the State Medical Association prior to the convening of the legislature.

The executive secretary was also directed to send a letter to all the members of the legislature calling their attention to the action of the Council and expressing the hope that the bill as drafted would receive their support.

It was agreed that the members of the Council would contact the officers of the various component medical societies over the state, requesting them to have their local legislative committees get in touch with their representatives in the legislature before they leave for Charleston.

SERVICE PLANS BILL PASSED

The Interim Committee bill (S. B. 3) placing medical and hospital service plans under the supervision of the state insurance commissioner was passed by the House March 22, and sent to the Governor.

By a vote of fifteen to thirteen, the Senate amended the bill by striking therefrom the provision for an advisory council, leaving sole supervision to the insurance commissioner. The House accepted this amendment without change.

Hospital and medical service plans are now in operation in eleven West Virginia cities. It is estimated that two hundred and eight thousand persons are enrolled in the hospital service plans and fifty-six thousand in medical service.

NPC Committee

Dr. Andrew E. Amick, Association President, in a letter addressed to the chairman, suggested the appointment of additional members of a committee to join with Drs. D. A. MacGregor and Ray M. Bobbitt in representing the State Medical Association in hearings on the Wagner-Murray-Dingell bill at Washington, now set for April 2. It was ordered that the committee be augmented by the selection of additional members if this course is considered desirable by Drs. Bobbitt and MacGregor.

Approval of Laboratories

The following report presented by a committee composed of Drs. T. G. Reed, chairman, and J. L. Patterson and Guy H. Michael, concerning temporary approval of laboratories, was unanimously approved:

"The committee appointed by the Council to study the method of approval of laboratories recommends that the State Health Department make certain changes in the present method of certification. Specifically, the committee recommends,

"(1) That test specimens be sent to the laboratories monthly instead of continuing the present system of sending 200 tests in three or four months of the year.

"(2) That laboratories seeking recertification be required to send their technicians to the State Hygienic Laboratory in Charleston for such a period of time as is required by the department, for a test of their efficiency. With the knowledge that the department has of the equipment of the various laboratories throughout the state, the committee believes that a temporary certification should be granted upon the successful completion of this examination.

"(3) That the State Health Department inspect the laboratories and examine the technicians at their work within a month after temporary certification.

"(4) That when a laboratory's percentage of readings shows an abnormal number of errors as determined by the monthly tests, an immediate investigation should be made by the department with a view of determining the cause of error and correcting the same.

"(5) That as soon as the department is satisfied with the equipment of the laboratories and the competency of its technicians, a permanent certification should be given said laboratories, regardless of the time of year these requirements have been fulfilled.

"After a careful survey of the laboratories and physicians of the state, the committee believes that it is their desire to cooperate with the State Health Department in increasing the efficiency of the certified laboratories, thereby affording more efficient service to their respective communities.

Thomas G. Reed, M. D., Chairman
Guy H. Michael, M. D.
J. L. Patterson, M. D."

Honorary Members

The following doctors were elected to honorary life membership:

Dr. C. L. Kinney, Idamay
Dr. W. E. Whiteside, Parsons

Dr. J. E. Wilson reported that a sub-committee composed of himself as chairman, and Drs. V. L. Peterson, of Charleston and R. H. Boice, of Parkersburg, had prepared a schedule of x-ray fees for submission to the Workmen's Compensation Commissioner. The fee schedule follows: Finger or toe, $5.00; hand or foot, $10.00; leg, hip, arm or shoulder, $10.00; and head, chest, spine, or pelvis, $15.00.

The schedule as submitted was unanimously approved by the Council and the executive secretary directed to bring the matter to the attention of the Workmen's Compensation Commissioner.

Rural Health Conference

The Council directed that the chairman of the committee on rural medical service be requested to attend a conference on Rural Health to be held in Chicago, March 30, under the sponsorship of the American Medical Association.

The meeting was attended by the following: Drs. Thomas L. Harris, chairman, and T. M. Barber, B. S. Brake, J. E. Wilson, A. R. Sidell, N. H. Dyer, John P. Helmick, Guy H. Michael, T. G. Reed, E. A. Trinkle, W. C. Swann, J. L. Patterson, and R. D. Gill, Councillors; and Mr. Charles Lively, secretary ex officio. The meeting was also attended by Drs. R. J. Wilkinson, G. F. Grisinger, V. L. Peterson, D. A. MacGregor, and R. H. Boice.

POLIO CLINIC AT MILTON

A full day of clinical teaching in all phases of poliomyelitis will be given by the orthopedic staff at Morris Memorial Hospital, Milton, Sunday, May 12, 1946, beginning at 10 A. M. This is the day preceding the opening of the 79th annual meeting of the State Medical Association at Huntington. Registration will be limited to West Virginia doctors by preliminary arrangement only. Doctors wishing to visit the hospital and participate in this clinic should address either the Superintendent, Morris Memorial Hospital, Milton, or Mr. T. Sterling Evans, National Foundation for Infantile Paralysis, Security Building, Charleston.

ORTHOPEDISTS NAMED TO DPA BOARD

Dr. Randolph L. Anderson, of Charleston, and Dr. Jay L. Hutchison, of Huntington, have been renamed by Robert F. Roth, director of the Department of Public Assistance, as members of the advisory board of orthopedic surgeons in that department.

Dr. Justus C. Pickett, of Morgantown, recently discharged from military service, was named to succeed Dr. E. F. Glass, of Wheeling, who has served in a temporary capacity as a member of the board during the war.

SPECIAL TRAINS TO SAN FRANCISCO

The 1946 session of the American Medical Association will be held in San Francisco, July 1-5, 1946. It is anticipated that the attendance will be comparable with that of pre-war years.

Several special trains will be operated out of the middle west, particularly Chicago, and it is possible that one special will start from either Columbus or Cincinnati. Full information concerning fare, route, accommodations, etc., should be available the first of May.

Hotel rooms are being reserved through a special committee appointed for the purpose. Doctors who expect to make the trip should get in touch with Dr. Lawrence Montgomery, 100 Grove St., San Francisco. It is advisable that reservations for rooms be made without delay.

TECHNICAL EXHIBITS AT HUNTINGTON

All available space for use for technical exhibits at the annual meeting at Huntington, May 13-15, 1946, has been reserved. The following is a complete list of technical exhibitors who will have displays at the meeting:

A. S. Aloe Co.
Borden Co.
Burroughs Wellcome & Co.
Ciba Pharmaceutical Products
Coca-Cola Co.
F. A. Davis Co.
Feick Brothers
H. G. Fischer & Co.
General Electric X-ray Corp.
Kloman Instrument Co.
Lanteen Medical Laboratories
Lederle Laboratories
Liebel-Flarsheim Co.
Eli Lilly and Co.
J. B. Lippincott Co.
Mead Johnson and Co.
Medical Arts Supply Co.
McLain Surgical Supply Co.
National Drug Co.
Nestle's Milk Products
Ortho Pharmaceutical Corp.
Parke, Davis and Co.
Philip Morris & Co., Ltd.
Powers and Anderson
W. B. Saunders
Sharp & Dohme
U. S. Vitamin Corp.
Van Pelt & Brown
Westinghouse X-Ray Co.
White Laboratories
Max Wocher & Son Co.
X-Ray Supply Co. of W. Va.

OFFICIAL CALL FOR CONVENTION

Charleston, West Va.
March 20, 1946

To the Officers and Members of the West Virginia State Medical Association:

The 79th annual meeting of the West Virginia State Medical Association will be held at Huntington, West Virginia, May 13-15, 1946. Headquarters will be established at the Prichard Hotel.

The House of Delegates will convene for the first session Monday afternoon, May 13. The second session will be held Tuesday afternoon, May 14.

The Scientific Assembly of the Association will open with the general meeting Monday, May 13, at 9:30 A. M. The annual address of the President will be delivered that evening.

ANDREW E. AMICK, M. D.,
President.

Attest:
CHARLES LIVELY,
Executive Secretary.

THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII MAY, 1946 No. 5

VASCULAR INJURIES IN BATTLE CASUALTIES*

By LT. COL. BERT BRADFORD, JR., MC, AUS
Charleston, West Virginia

The end results obtained in the treatment of battle casualties with vascular injuries have been very discouraging. There has been a high incidence of secondary amputation, severe infection and death following vascular injuries. Almost every type of operative procedure known has been tried and very careful records have been kept. A special vascular chart and record was adopted which improved the accuracy in localization of these injuries and which made possible a critical analyzation of our results.

On admission to the hospital all casualties were carefully examined for signs of vascular injuries. This was especially true in extremity and neck wounds.

The following diagnostic signs should be ascertained:

1. Absence of peripheral pulsations by digital examination. Oscillimetric studies may be of added significance.

2. Decrease in skin temperature by manual examination or thermocouple studies.

3. Loss of motion of parts distal to the wound. Motion of toes or fingers is, as a rule, a good prognostic sign but not infallible.

4. Loss of sensation distal to the wound. Associated nerve damage may be misleading in such cases.

5. Color of extremity. With arterial damage the skin shows marked pallor, as a rule, while in venous damage the extremity is hyperemic and edematous.

6. Presence of bruit and thrill will denote presence of a false aneurysm or an arteriovenous fistula. In such cases surgery probably should be postponed indefinitely, but careful watch for secondary hemorrhage must be kept. Definitive surgery may be safely done after six to eight weeks.

Positive or negative findings were recorded on the clinical work sheets. Some cases entered the hospital with tourniquets still in place and, in a few instances, especially early in the campaign, were overlooked. In badly mangled extremities in which amputation was felt to be the only possible procedure, the tourniquet was left in place until after the limb had been amputated. Physiological amputation by means of a tourniquet would appear to prevent absorption of toxic elements and make it easier to combat shock associated with such cases. Major vascular injuries are frequently associated with severe shock and large quantities of whole blood are required. At times, it is essential to give blood rapidly by pumping it into the circulation.

These cases require high priority in operation, even more so than do the penetrating abdominal or chest wounds. Often, there is a large hematoma under the fascia which interferes with what little collateral circulation may be present. If any at-

*This paper was written during combat in an Army Evacuation Hospital in Germany, and is based upon extracts from the surgical history of the hospital kept by the author.

tempt to anastomose blood vessels is to be made, the earlier surgery is done the better will be the end result. It should be noted that surgery may be an important factor in the shock therapy and some patients will fail to respond until the latter is carried out. Proper splinting of associated fractures is prerequisite in the preoperative treatment of these patients. It should be pointed out that no therapy should be begun until the patient has been carefully examined for any other injuries.

OPERATIVE PROCEDURES

Adequate exposure is important. In popliteal injuries the prone position gives better exposure. Exposure should allow sufficient room both proximally and distally to control hemorrhage by placing tapes or bull clamps before the clot is removed. A tourniquet is applied loosely as a precautionary measure but digital occlusion of the vessel is preferable in case active bleeding occurs before adequate exposure has been obtained. A sterile vascular set-up should be always available to care for these cases. This should include special clamps, tapes, glass or plastic tubes, suture materials, irrigation set, etc. One should always approach the injury proximally and no attempt should be made to remove the immediate vascular clot unless adequate preparation has been made to carry out any type of vascular procedure without troublesome bleeding. One should never clamp a blood vessel blindly. Ordinary hemostats may injure the intima to such an extent that thrombosis will be inevitable. It should be remembered that in carotid injuries the retrograde bleeding is almost as active as bleeding from the proximal segment due to the rich collateral circulation. Active retrograde bleeding is always a good prognostic sign and in such cases nothing more than ligation or suture should be attempted.

Arterial suture of small lacerations of vessels has given the best results. Six-naught silk sutures on an atraumatic needle (eye suture) are used with an inverting interrupted mattress technique. If more than two thirds of the vessel is severed it is preferable to complete the severance and do an end to end anastomosis. However, in the latter cases we frequently have found the vessel thrombosed by the time the procedure is finished. One should make sure that the ends are cut off smoothly and that no clot or intimal damage is present before any attempt is made to suture. If a segment of artery is missing, a glass or plastic tube may be inserted to bridge the gap. In such cases the tube must be put in quickly, the proximal segment being intubated first, and the circulation reestablished. Intravenous diodrast injections (30 cc.) proximal to the tube shows thrombosis early. We have not found the Blakemore method of anastomosis with vitallium cups and vein graft practical, because of the time factor and increased technical difficulties. We must admit that we have had inadequate experience with this method. We have not felt it advisable to ligate the accompanying vein when attempting to reestablish blood flow, or when active retrograde bleeding is present.

Ligation of the femoral artery just distal to the profunda, as advocated by Holman, may prove to be of benefit in femoral and popliteal severances. We have tried it in two cases of popliteal injury with apparent success in one. Theoretically, this eliminates the long, blind, distal segment of femoral artery which has only a few muscular perforating branches and plays practically no part in supplying blood to the foot or lower leg. This, in turn, exerts a greater pressure in the profunda, with increased volume of blood to the distal part of the extremity.

In one femoral we injected a 2 per cent methylene blue solution proximal to a tube graft hoping to visualize the color in the tube. We were amazed to find no color in the tube but we did find a bluish discoloration of the skin which was well demarcated just below the knee joint. Later, it was necessary to amputate about two inches below this line. When methylene blue was injected into normal vessels there was no deposit of the dye in the skin. This test is worthy of further trial.

All patients with vascular injuries associated with fractures were placed in bivaled plaster casts or skin traction. Where no fracture was present a posterior mold was adequate.

It was felt that a separate vascular ward would be helpful in the postoperative care of these patients and one was established about midway through the campaign. We feel that all major vascular injuries are definitely nontransportable cases and should be watched carefully for several days to ascertain viability of the limb. Infection was not uncommon in cases with limitation of blood supply, and gas gangrene was not uncommon. Sulfadiazine and penicillin were given routinely in all cases throughout the campaign, but local implantation was discontinued early as it did not seem to have any beneficial effect.

The wound was not disturbed unless there was an unexplained fever, increasing pain or other sign of infection. Ordinarily, distal inspection will supply adequate information such as skin temperature, color and motion. However, it should be pointed out here that none of these signs is infallible. Skin temperature is frequently misleading. We have seen many cases in which the skin was warm and in which there were signs of increasing return of sensation wherein the muscle was nonviable and amputation proved necessary. In case of doubt we have felt it advisable to make a longitudinal incision over the anterior peroneal muscle group. This group is the first to go in cases with insufficient blood supply. At times it is practically impossible to determine viability of the extremity without operative intervention and inspection of the muscle. As a rule, if amputation was necessary it was carried out within four to five days following injury as there was usually a fairly well developed line of demarcation by the end of that time. Dry gangrene is no indication for early amputation and these patients can be evacuated without difficulty.

Postoperatively the patients were watched very carefully. Rectal temperatures were recorded every four hours day and night. Unexplained fever or pain was considered adequate reason for the removal of the cast and inspection of the wound. It must be remembered that chemotherapy may complicate the picture to the extent that even though fever is slight or even absent complete muscle necrosis may be present. There was no smoking allowed in the vascular ward and patients were given whiskey four times a day in an effort to produce peripheral vasodilatation. We have not been impressed with parasympathetic blocks but have done them religiously every twelve hours unless there was some contraindication. We have noted an increase in the skin temperature but have felt that there was no definite effect on the underlying muscle. The injured extremity was kept at a slightly lower level than the rest of the body. We felt that papaverine was beneficial but it was not available. There is usually a severe anemia as a result of hemorrhage and toxemia in these cases and blood in repeated transfusions is essential. Increasing anemia, not accounted for by blood loss, usually is the result of muscle necrosis.

Heparin was available in small quantities only and our experience in its use was limited. We know that serious hemorrhage can arise unless heparin is used judiciously.

In large wounds when primary closure is contraindicated, heparin should be used in small doses, if at all. It would seem that if heparin were to be used these wounds should be closed primarily to prevent secondary bleeding. At present, heparin in Pitkin's menstruum is available which should simplify the administration of this most powerful and treacherous drug.

The site of amputation, as a rule, can be selected only at the time of operation when the status of the muscle has been definitely determined. If amputation is carried out just above the line of demarcation, one usually will find avascular muscle although there may be a very active bleeding from the skin. Amputation is always carried out at the lowest possible level but never through avascular muscle. If there is no infection present the skin traction should be applied immediately with Ace adherent and stockinette, otherwise it is preferable to postpone traction for two or three days. If amputation just below the knee is done it may be preferable to remove the head of the fibula with all of its muscular attachments. We feel that disarticulation (if at the lowest point of viability) may be indicated as it is a less shocking procedure. We have had no infection in the cartilages.

COMMENT

Any operative procedure destined to reestablish blood flow must be done early if good results are to be expected. In battle casualties the time factor must be considered before any procedure is contemplated. In many cases the muscle is in an irreversible state when the patient is admitted. Six hours is an arbitrary time, we feel, in which muscle will be viable if a major vessel is severed and inadequate collaterals are present. In most of these injuries usually there is marked tissue damage besides the vascular injury, such as associated fractures and nerve injuries. All collateral branches may be involved in these cases. Many of these patients are severely shocked as a result of marked blood loss or associated abdominal or chest wounds and the saving of the patient's life should be the first consideration. In such cases any immediate attempt to repair the vascular damage and to save the limb may result in the death of the patient.

It would appear that glass or plastic tubes result in early thrombosis and subsequent gangrene. Heparin has not been available in sufficient quantities but should prove a valuable adjunct in the proper handling of such cases. Heparin in Pitkin's men-

struum given intramuscularly at 48 hour intervals will simplify the administration of this useful drug. With this method, the bleeding time usually can be maintained between fifteen and twenty-five minutes.

CONCLUSIONS

1. Our results in major vascular injuries in battle casualties have been disappointing.

2. Gas gangrene is not an uncommon complication.

3. Saving the patient's life should be the primary consideration in the plan of treatment.

4. Vascular injuries should have high priority in the triage scale.

5. Glass or plastic tubes are more practical in bridging vascular defects than the vitallium cups and vein grafts, but the final results were discouraging.

6. Active retrograde bleeding and motion of the toes or fingers are good prognostic signs.

7. Skin temperature and sensation may be very misleading in judging viability of a limb.

8. Severe anemia is a common postoperative finding.

9. Site of amputations cannot be accurately judged from the line of demarcation.

10. Suture of a vascular laceration is the best method of treatment.

11. Heparin may be a valuable adjunct if used carefully and only after primary closure of the wound has been carried out.

12. Circulatory gangrene results almost invariably in cases of popliteal injury, and in about 50 per cent of cases of femoral injury.

PSYCHOSOMATIC BACKACHE

Backache is a frequent complaint among persons with anxiety states.

In a hospital where large numbers of men with anxiety states have been seen, the type of backache observed is due in most cases to hysterical conversion symptoms or to functional backache caused by muscular tension and fatigue. The latter type of backache is by far the most frequent one, but the two types are often associated.

It is believed that pain of psychogenic origin should receive careful consideration in the differential diagnosis of any case of backache, especially since it may be closely associated with backache caused by organic disease and is often the cause of the prolongation of symptoms.—Major Morgan Sargent, M. C., in New England J. of Med.

OCCUPATIONAL DISEASE CONTROL*

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Before considering some of the more specific phases of control a general discussion of occupational diseases may be in order. From earliest days the term 'occupational disease' has had a very specific meaning. This, at first, was perhaps too limited but currently there is a tendency to make it too all inclusive and to consider as 'occupational diseases' all sorts of illnesses occurring among workmen. There was very early recognition of lead and mercury poisoning and also of silicosis, but not by that name. As the variety of raw materials used in industry has increased in number more have come into use which could affect health. The effects of some of these were not recognized for some time because the action was essentially that of a cumulative poison. The problem of occupational disease has been far more varied during World War II than it was during World War I. Take solvents as an example. During World War I there were perhaps only a dozen or so solvents in general use, whereas during the last few years solvents alone have included hundreds of materials. By far the greatest number of occupational diseases come from absorption of material, inhaled either as dust or as gas, vapor, fume or mist. Some other materials act more particularly on the skin or may produce illness by absorption through the skin. A few occupational diseases, such as caisson disease or the 'bends,' and 'miners' nystagmus,' are due to physical conditions and not to toxic action.

Some of the occupational diseases are very characteristic syndromes with quite uniform symptoms and pathological changes and a diagnosis is possible more or less by specific tests or signs. Other are much less characteristic but none the less of occupational origin. Diagnosis in these cases may require as much clinical skill as in the case of some of the most unusual and obscure nonoccupational diseases plus a *need* for a very carefully taken history, including the known exposures and the known effects produced by the substances concerned. In some instances we have to deal with the effects of extreme individual susceptibility even to the point of definite allergy. It is an open question whether a strictly

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*Presented at dinner sponsored by Carbide and Carbon Chemicals Corporation in honor of members of Kanawha Medical Society, at Charleston, October 23, 1945.

allergic reaction should be classed as an occupational disease.

Good definitions of an occupational disease are contained in many of our compensation laws. One very comprehensive definition, though somewhat lengthy, is that given in the Virginia Compensation Law as follows:

> "The term 'occupational disease' means a disease arising out of and in the course of the employment. No ordinary disease of life to which the general public is exposed outside of employment shall be compensable, except when it follows as an incident of occupational disease as defined in this law. A disease shall be deemed to arise out of the employment only if there is apparent to the rational mind, upon consideration of the circumstances, (1) a direct causal connection between the conditions under which work is performed and the occupational disease, (2) it can be seen to have followed as a natural incident of the work as a result of the exposure occasioned by the nature of the employment, (3) it can be fairly traced to the employment as the proximate cause, (4) it does not come from a hazard to which workmen would have been equally exposed outside of the employment, (5) it is incidental to the character of the business and not independent of the relation of employer and employee, and (6) it must appear to have had its origin in a risk connected with the employment and to have flowed from that source as a natural consequence, though it need not have been foreseen or expected before its contraction."

Another very brief definition is that contained in the Ohio Compensation Law, which defines occupational disease as:

> "A disease peculiar to a particular industrial process, trade or occupation and to which an employe is not ordinarily subjected or exposed outside of or away from his employment."

In spite of such definitions as these there seems to be a tendency among some physicians to jump to conclusions without sufficient information, either as to actual exposure or a possible effect which might result, to diagnose an illness as 'occupational.' This not infrequently occurs because of a very erroneous history given by the patient, or perhaps from the reasoning that because a workman is ill his illness must be attributable to his occupation. Unfortunately, in some jurisdictions, such haphazard diagnoses seem almost to have been encouraged by Compensation Commissions who have granted compensation in some extremely improbable claims. In any event it should be urged that the same care be taken in the diagnosis of an occupational disease as in any other, and it should be always kept in mind that a diagnosis *must* be based on a careful clinical examination *plus* a reliable history. When the attending physician is in doubt as to the actual history or the possible hazards of materials handled, the pertinent information usually can be obtained by consulting the physician for the plant at which the patient is employed.

With the countless increase of possible toxic materials handled in industry, there does not seem to have been a proportionate increase in occupational illness. This is because there is a more general recognition of the hazard present and the fact that no matter how toxic a material is it *can* be handled with reasonable safety if proper precautions are taken.

Theoretically, all occupational diseases should be preventable. The difficulties encountered in attaining this goal are:

1. Frequent lack of appreciation of the cumulative effects after long exposure to low concentrations of materials not immediately harmful.

2. Largely because of this lack of appreciation, often difficulty is experienced in getting full cooperation from workers in making protective measures effective.

3. Especially during the war, occasionally there have been difficulties in getting necessary protective equipment or in having this properly designed, installed and maintained.

4. The use of materials which may have unrecognized effects.

This is often the case, especially where mixtures of uncertain composition may be used.

There are the same reasons for preventing occupational diseases as for preventing industrial accidents. Both are potential hazards of occupation. Every reason, humanitarian, economic, and legal, which justifies workmen's compensation laws for accidental injury is equally valid in the case of occupational disease, provided what is an occupational disease is properly defined. It should be always remembered that work is no guarantee of everlasting good health and that the working population is subject to the same general disease hazards as is the rest of the population. Reluctance to support occupational disease compensation laws seems due, generally, to the following factors:

1. Employers sometimes say "I have no occupational disease hazard so why should I pay for

coverage for someone who has?" This is empty argument. Just because an employer may not have had a fire or a compensable accident for a long time, would he argue that he needs no insurance for these hazards?

2. Fear that occupational disease compensation will be used to function as more or less general sickness insurance leading to enormous outlay.

3. In line with the above the claim in some quarters as to the existence of countless occupational disease sufferers so that it is feared that the insurance premium rate would be excessive. Actually, in states which have had blanket coverage for occupational disease compensation for years, intelligently administered, the cost for occupational disease has never exceeded a very low percentage of the amount spent for industrial accident compensation. It would seem that occupational disease control has been definitely promoted when these have been included under workmen's compensation just as accident prevention was promoted by workmen's compensation laws for accidental injury.

To pass from general to more specific consideration of control, it can be assumed that occupational disease results chiefly from contact with or absorption of harmful materials encountered in industry. If this is so, then if the harmful exposure can be avoided there will be no occupational disease. The steps necessary for any plant management to accomplish this may be given as follows:

1. Know the materials handled in a plant, and how handled.

2. Know the properties of these materials with reference to their physiological effects and their degree of hazard.

3. Determine whether the handling of any given material means only an exposure or whether it constitutes a real hazard.

4. Determine whether materials handled which in themselves do not cause a hazard may result in creating one during their use in any given process. This sometimes occurs through a combination of materials producing a compound with quite different effects.

5. Can the harmful exposures noted be controlled? This calls for an evaluation of the hazard as to whether it is due to inhalation, skin contact, etc., and the practicability of available means of controlling dust or vapor or avoiding skin contact. It might be mentioned that hazards of ingestion are extremely rare in industry.

6. If the harmful exposure can not be satisfactorily controlled at its source, a substitute material should be considered. Such a substitute must be equally applicable for the purpose, equally available, and known to constitute less physiological hazard.

7. When hazardous materials must be used and the hazard can not be controlled at its source or by substitution, such measures as the following must be considered:

a. Isolation of process to expose as few individuals as possible.

b. Shorter time of exposure alternating with some other hazard-free work.

c. Use of personal protective equipment.

d. Periodic physical examinations with removal from further exposure at any sign of an adverse effect on the individual. This should be done before any disability has resulted.

8. Proper plant and personal hygiene.

SUMMARY

In summary, the fundamentals of control may be stated as follows:

1. Knowledge of materials handled, what they are, what may be their physiological action, what additional products may be formed during their use and the hazards of these resulting products.

2. Engineering methods to control all exposures, as far as possible, at the source.

3. The use of properly designed and selected personal protective equipment when indicated. Strict observance of good personal hygiene.

4. Physical examinations. These are most essential for proper placement of men in such physical condition that the exposures of their work will not constitute an undue hazard and for early detection of any departure from the normal due to exposure. The object should be to remove the employe from exposure before any disease or disability is caused.

5. If, in spite of the above, because of failure of recognized control measures, accidental increase of exposure, the use of material of undetermined hazard, or unusual individual susceptibility, occupational disease does occur, the patient should be placed promptly under properly directed medical treatment and a thorough study made to determine the source of the disease in order to prevent its occurrence in others.

OTOLARYNGOLOGIC CONTACTS IN DENTISTRY*

By H. V. KING, M. D.,
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In this paper it is not my intention to introduce any new ideas. The field has been well covered by clinicians having at their disposal the services of many eager young assistants. Rather it concerns a grouping of the old concepts, an emphasis on some, and a general alerting to the advantages to be gained by a close liaison between the two kindred professions.

Consider for a moment that the entire anatomic field of dentonasal relations is developed from the primitive stoma. Consider further that in the lower animals and, to some extent, in man, this field most directly and imminently is charged with the duties of self-preservation, subsistence, and general social activities. One would presume that this area would be richly and fully innervated, with most direct connections between its several functions. This is true, in some cases all too true, by way of the trigeminal and facial nerves and immediately through the sphenopalatine ganglion. The entire vegetable nervous system also is closely linked. A rich harvest awaits the young investigator who tills this field and brings forth its neurological results.

The father-son relationship of the medico-dental groups is seen most fully in the otolaryngologic area. Viewing this as a mutual and happy state, let us see what duties we owe each other, what diagnostic and therapeutic advantages we may give each other, and what joint aids we may contribute to human comfort and welfare.

Chronologically, I believe the first and graver responsibility lies with the otolaryngologist. He, with the general practitioner, sees first and before any permanent dentition, those cases in which overgrowth of the pharyngofaucial lymphoid structures deprives the nasopalatal region of its proper air stimulus. This syndrome has plagued humanity ever since it emerged from the family-tribal social era. Mass infection and increased bacterial activity produce a direct response of tonsil and adenoid hyperplasia.

The clinical picture we see is that of a high and narrow palate, a crowding forward of the premaxillary bone, with the accompanying forward movement of crowded dentition. This picture of buck teeth, a tendency to caries, and a mouth hard to clean, is a vicious circle and is the primary responsibility of the nose and throat man. His obligation is to see that an early correction of these bad conditions is made. The adenoid situation may be corrected very early, done in many cases in the first weeks of life and without anesthesia. At this age tissues involved are quite soft, almost gelatinous.

Again, in the tonsil-adenoid operation the age of the patient is not vital. I have one infant who underwent tonsillectomy at the age of 13 months and cases have been reported in which operation was performed as early as 7 months. With proper technic a clean result may be had. In any event the possibility of recurrence should not defer the procedure whenever needed. In the older child and in adults we often encounter carious teeth, gingivitis, alveolar abscesses and dental cysts. These patients should be firmly referred to the dentist for treatment.

Before leaving this subject, the question arises as to who should remove the damaged deciduous teeth so often found at the time of tonsillectomy. In many, these are so loose that they are practically extracted by the introduction of a mouth gag. In others there are complications in the form of alveolar infection, and in still others the mother of the patient wants a dentist called for the purpose of extraction. During the rush of work which has pressed all of us through the war years the dentist's day has been filled with appointments and it has been difficult for him to leave his work at the time the operation is scheduled.

Also proper to this discussion is the question of the propriety of extracting permanent teeth during the general anesthesia of a tonsillectomy.

A joint responsibility arises when teeth encroaching on the maxillary sinus are extracted. In many of these cases a direct opening is left. Most of them heal without trouble provided a clot is formed and probing and packing are omitted. At this point let me mention the fact that a single standing molar in the maxillary region presents a problem. Removal of part of the sinus wall in such cases constitutes a complication and a threat to be avoided.

*Presented before the Monongalia County Medical Society at Morgantown, November 6, 1945.

Cases in which a root apex has been lost into the sinus are not rare. Surely the dentist should be given a clean bill of health and the presence of the bit verified by x-ray, when its removal intranasally should be simple. Dentigerous cysts opening into the sinus are a joint problem and should be so handled.

In fractures of the maxilla the dentist has contributed widely and often. The construction of dental splints is properly and aptly in his field. Every case is an individual study and can be met by ingenious dental mechanics. The least we can do is to have a dental consultant in all of these cases. As they are cared for, at least in our section, by the general surgeons, I pass the buck to them.

Fracture of the mandible should be almost entirely a dental assignment. The many cases in which facial deformity and malocclusion are seen after a broken jaw could be largely avoided. Possibly the dentists might select one of their number to engage in this work.

Further aid may be given by the dentist in the incidence of otalgia, tinnitus and deafness. When the usual signs of otalgia are absent, search should be made for impactions, infected or necrotic pulps, or other abnormalities, which, if found, should be corrected by the dentist.

Dislocations of the jaw occur in both fields. Here the otolaryngologist has an advantage, for his luxations are usually under general anesthesia and therefore readily reduced. The dentist, working with local, is not so fortunate.

Deafness and tinnitus may be due also to malposition of the temporomandibular joint. This articulation, which assumes its permanent form at age ten or earlier, is affected by malocclusion and by changes in the angle due to extractions with consequent atrophy of the alveolar bone.

Brown and Kelley report a case of earache increasing in severity until nightly sedatives were required. The pain also radiated to the occipital and temporal regions. Study of this case showed a malocclusion, and when a fourth inch bite block was fitted, the symptoms disappeared.

Sidney Kohn presented a case of unilateral ear and mandibular pain, due to childhood injury. This also was relieved following the removal of an impacted third molar and fitting a bite block.

The temporomandibular joint is usually regarded as not susceptible to change after assuming its permanent form. This, if true, is unusual.

Simple narrowing of the nasal choanae is sometimes found in older children, associated with a high narrow palate. Some advantages may be had in these cases by orthodontic spreading of the palate.

One of the more frequent conditions encountered by both the otologist and the dentist is Vincent-Plaut, Vincent's, trench mouth, or, in more recent nomenclature, fusi-spirochetal infection. The diagnosis is fairly easy to make. However, thoughts of diphtheria-streptococcic membrane and even syphilitic mucous patches intrude and may confuse us at times. The purely dental cases are found as a specific gingivitis of considerable intensity, often producing such pain and sensitiveness that food is neglected. In these cases a thorough scaling of the teeth must be done in addition to the treatment selected. As to general measures, the arsenicals are active and effective. Bismuth fills the same requirements. The local treatment includes nascent oxygen and acids. To these now have been added the sulfonamides and penicillin, from the administration of which, prompt relief is claimed. In any case in which there is no response after a week's treatment a serologic test for syphilis should be made. In this connection the possibility of an oral or faucial primary lesion should be mentioned. Many have been reported but I have never seen a case.

Maxillary and dental malignancies are seen infrequently. The diagnosis and treatment in these cases are usually a joint concern. Maxillary sarcomas have, and deserve, a particularly bad name and are, fortunately, rare.

I have not mentioned the many cases of corneal ulcer and other eye conditions in which the teeth are antecedent or involved. They might properly be made the subject of a future discussion. Taken as a whole, a closer and more expanded bond between the otolaryngologist and dentist should insure better care for our patients and additional returns for both professions.

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In addition to the references quoted, I wish to thank Dr. John W. Kemper, oral surgeon to the U. of Michigan Hospital, for a helpful conference.

MESENTERIC OCCLUSION TREATED BY MIKULICZ TYPE OF RESECTION

CASE REPORT

By CHAUNCEY B. WRIGHT, M. D.,
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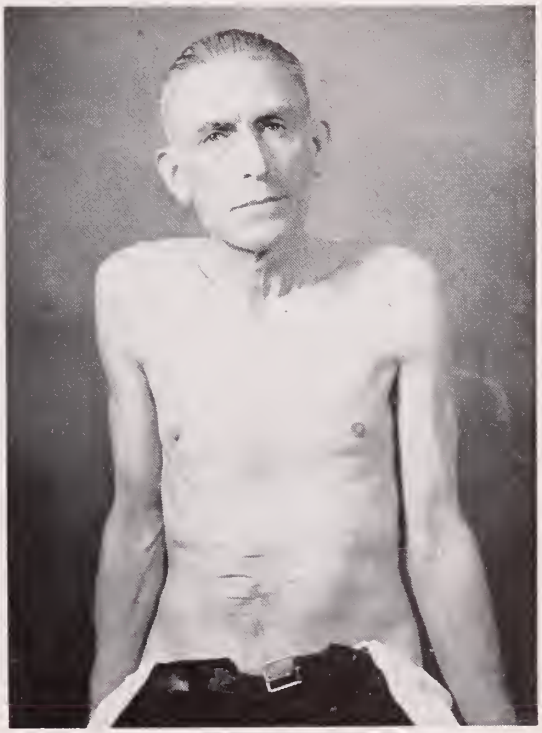
Pathological occlusion of the blood vessels of the mesentery has a high mortality rate, as much as 75 per cent being reported in some instances. In a large series of cases, Trotter[1] has stated that arterial occlusion contributes 60 per cent of the total mesentetric occlusions and thrombosis of the mesenteric veins occur in 40 per cent of the cases. Bockus[2] states that circulatory disease plays a most important role as an etiological factor and quite often venous thrombosis is associated with appendicitis, pelvic inflammatory disease, carcinoma of the pancreas and strangulated hernia. The exact cause is obscure. In arterial occlusion due to embolism or thrombosis, mitral stenosis and ulcerative endocarditis have been reported. Other causes which have been listed are arterial sclerosis and traumatic injuries of the abdomen. Whitaker and Pemberton[3] have listed the source of mesenteric vascular occlusion in a series of 60 cases. Klemp[4] has emphasized the importance of thrombosis due to trauma. Dunphy, Englebert and Whitfield[5] have presented a study of 30 cases of mesenteric vascular disease, where arterial thrombosis accounted for over 50 per cent of the cases and, in over 80 per cent of the cases, the ileum was involved. In a large proportion of their arterial cases there was extensive coronary artery disease or cerebral arterial sclerosis, and in 60 per cent of the venous group, cirrhosis of the liver was recognized. In 104 cases, Brown[6] reported 71 deaths and the associated pathology revealed appendicitis in 17 per cent of the cases in the arterial group.

Although treatment by enterostomy has been advocated by some, primary resection with anastomosis is the probable method of choice.[7,8] Luke[9] reports a case of mesenteric thrombosis with recovery treated with heparin alone. Doran[10] recently has reported a recovery following an ileocolostomy. Wangensteen[11] reported recovery in a patient that was treated for seven days by exteriorization of the involved bowel.

Primary excision of the involved bowel, followed by a lateral anastomosis, is obviously the ideal procedure. On the other hand, as in the case reported below, where the lines of demarcation between normal and pathologic bowel are poorly defined, exteriorization with resection of the necrotic bowel seems indicated.

CASE REPORT

J.P., white, male, age 47, was admitted to St. Mary's Hospital on the evening of July 1, 1943. Twelve hours before admission to the hospital he had been awakened from his sleep by sharp excruciating pain over the epigastrium. He immediately became nauseated but did not vomit. The pain was colicky in character and continued in severity until he was seen by his family physician at 2 p.m. He was given morphine sulphate gr. ¼. At the time of admission to the hospital, he appeared to be in shock. His temperature was 98 F., pulse 101 and respiration 22. The blood count and the urine were essentially normal. There was marked tenderness and board-like rigidity over the epigastrium. There was no distention and no mass could be palpated. A diagnosis of perforated duodenal ulcer was made and an operation was performed immediately. There was bloody fluid in the peritoneal cavity. The jejunum, from near its proximal end, was gangrenous, and the ileum had a bluish appearance which extended as far as the ileocecal junction. A Mikulicz type of resection of 3½ feet of the jejunum was done. The blood chlorides and blood proteins were maintained by infusions and transfusions. On July 6, the continuity of the intestines was restored tem-



Appearance of Patient Four Months After Operation.

porarily by connecting the two loops with a rubber tube, but this was discontinued in five hours because of abdominal cramps and distention. A crushing clamp was applied between the two loops on July 15, and secondary closure of the wound was done on August 31. The pathologic diagnosis of Dr. S. Werthammer was as follows: "Necrosis and hemorrhagic infarction of a section of the jejunum due to thrombosis of a branch of the mesenteric artery." In November, 1943, the patient returned to his work as a machine operator in a shoe factory.

CONCLUSIONS

There are many contributory factors causing mesenteric thrombosis, although the exact etiology is not known. The different methods of treatment have been reviewed, and a report of a case in which treatment by exteriorization with resection of the bowel resulted in recovery, is presented.

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AMERICAN PEOPLE CANCER CONSCIOUS

According to the Gallup Poll, more than seventy-five per cent of our population is in favor of an appropriation by the government of $200,000,000 for the study and treatment of cancer. This shows that the American people are alive to the importance of the cancer problem. After all, the physicians of America are solely responsible for the outstanding knowledge possessed by our folk concerning cancer, this through every form of publicity, including newspaper and magazine articles, radio talks, and personal appearance before various groups throughout the country.—J. Ind. State Med. Assn.

VENTRICULOCISTERNOSTOMY (REPORT OF FOUR CASES)

By ARCHER A. WILSON, M. D., F. A. C. S.*

Charleston, West Virginia

The aqueduct of Sylvius is a short, small tube situated deep in the mid-brain, connecting the third and fourth ventricles. Through it cerebrospinal fluid must pass from its source in the lateral and third ventricles to the fourth, and thence to its absorptive field. This area is extremely important in that lesions here obstruct the flow of fluid through this narrow passage and thereby produce an internal hydrocephalus with all its terrible consequences and implications. It is, therefore, an area of much concern to the neurosurgeon in his attempt to deal with lesions which have produced an obstruction at this point. Tumors in or under the third ventricle (with the exception of the so-called colloid cysts which are located in the anterosuperior part of the third ventricle in the immediate vicinity of the foramen of Monro) are most hazardous for surgical removal. The same applies to tumors above the aqueduct, such as pineal tumors, which may be of relatively slow growth. Another type of lesion found in this area may be a malformation of the aqueduct itself or stricture of this passage as the result of inflammatory change. There long has been the need of some palliative short circulating procedure which would relieve the internal hydrocephalus and its consequent symptoms in such lesions, particularly those due to slow growing tumors in the area or malformation of the aqueduct itself, so that such patients might be offered, for a time at least, a happy and useful life after alleviation of an obstructed flow of cerebrospinal fluid. Quite obviously, the ultimate outcome depends upon the nature of the obstructive lesion. Tumors of the brain stem often terminate fatally by direct encroachment upon vital centers before they have grown large enough to cause an obstruction, and in such instances, neither the procedure described below nor any other measure will materially alter the outcome, either as to relief of symptoms or prolongation of life. Nevertheless, there are many instances in which the procedure will alleviate distressing symptoms, avert a disaster, and enable the patient to enjoy a comfortable respite or perhaps, in some instances, effect a cure.

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Torkildsen[1], on September 27, 1937, operated on a 13 year old girl who gave a history of headaches and occasional vomiting of four years' duration. She showed a marked bilateral papilledema and a slight hemiparesis of the right side. Ventriculography revealed symmetrically enlarged lateral and third ventricles. Upon cerebellar craniotomy, no tumor was found, but when a small catheter was passed into the aqueduct from the fourth ventricle, an obstruction was encountered after about 1 cm. of free passage. Confronted with such a problem, he devised a procedure known as ventriculocisternostomy which he reported in 1939, and four years later, he reported that this girl was living and well and had shown no evidence of her former increased intracranial pressure. In September, 1938, he did a similar operation on a 23 year old man who consulted him because of headaches, vomiting, and a choked disc of 3 diopters. Ventriculography disclosed a tumor in the pineal region. With such findings, this man certainly had little to look forward to. Ventriculocisternostomy permitted him complete relief of his symptoms, enabled him to complete his education and to become a teacher. Thirty-two months later the author reported . . . "He performs his duty at two different schools, necessitating regular and long travels by foot over the mountains. Thus he leads a strenuous life, is a hard working man and feels quite fit for his work." The other five cases originally reported in 1938 were followed for a shorter period of time. The success of the procedure, of course, depends upon the nature of the lesion causing the obstruction. If the tumor is of rapid growth, then the period of postoperative survival must necessarily be of limited duration.

Ventriculocisternostomy is a simple procedure to carry out in association with a cerebellar craniotomy. It consists of introducing a small catheter into the posterior horn, securing it to the dura in one of the burr openings which always must be made over the posterior horns in cerebellar tumor suspects. A tunnel is then made in the skull from the burr opening to the cerebellar wound and the catheter passed through this tunnel under the scalp; its other end is then secured under the cerebellar dura and over the cisterna magna, and the overlying dura is then closed tightly. Thus the trapped supratentorial fluid is short circuited around the obstructed Sylvian aqueduct to the subtentorial basal cisterns whence it is free to reach its absorptive field.

Four cases are presented in which this palliative procedure has been carried out with gratifying results. Four other cases have been similarly treated in known malignant lesions of the brain stem area but these are not reported for the reason that the survival period, owing to the nature and location of the lesions, was short and it was not felt that any significant benefit was derived from the procedure.

Case 1.—B. J. L., male, age 8, was admitted to the neurosurgical service of the St. Francis Hospital, May 16, 1942, at the suggestion of Dr. A. E. McClue, because of nausea, vomiting, headache and staggering.

Case No. 1, showing tube and patient four years after operation.

PHYSICIANS

This patient was supposedly well until five weeks before admission, when he had mumps. This disease was associated with drowsiness, headache, nausea and vomiting which was projectile in character and which persisted until the day of his admission to the hospital. Diplopia had been present for three weeks, and staggering, in no particular direction, had been severe for three weeks.

His gait was very ataxic and there was marked decomposition of all coordinated movement, about equal on both sides. There was no nystagmus or ocular muscle palsies. His optic nerve heads showed marked papilledema with hemorrhages. There was a positive MacEwen's sign, and bilateral suboccipital tenderness was present. The blood pressure was 90 systolic and 60 diastolic. The general laboratory studies showed normal findings. An x-ray of the skull revealed widening of the frontoparietal and parieto-occipital sutures and some mottling of the inner table. He was suspected of having a midline posterior fossa tumor.

Ventricular estimation revealed extremely dilated lateral ventricles with a prompt crossing of the dye. Cerebellar craniotomy was then carried out. When the dura was opened, the cisterna magna was found to be full of fluid. The cerebellar lobes and vermis appeared to be normal and no cyst or solid tumor was encountered upon brain puncture. The lateral angles revealed no tumor. The fourth ventricle was explored and found to be normal but no dye-colored fluid could be seen coming from the aqueduct. Ventriculocisternostomy was then carried out, a small catheter being passed into the right posterior horn, anchored to the dura and brought out under the scalp, and secured to the undersurface of the dura over the cisterna magna. The dura was closed in the usual manner as was the wound.

His postoperative convalescence was quite stormy. Approximately two weeks after operation, his condition still not being satisfactory, 1 cc. of indigo carmine was injected into the left posterior horn and three hours later a good concentration of the dye was obtained upon lumbar puncture, indicating the patency of the tube. He left the hospital June 29, 1942, by which time his choked discs had greatly receded although the cerebellar herniation wound was quite tense. His attacks of vomiting were much less frequent.

He was examined December 17, 1945, and appeared to be bright and alert, and in excellent physical health. His base was a little wide, perhaps, but his gait was normal, his station was steady and there was no evidence of any decomposition of coordinated movement. He has sustained some visual deterioration from his chronic intracranial pressure as manifested by a pallor of his nerve heads. He stated he was playing outdoor games with other children of his age, had no complaints, and his mother stated that in spite of his visual loss, he is an "A" student in school.

It seems hardly possible that this boy could harbor a tumor in so vital an area as the region of the

Case No. 2, showing tube and patient three years after operation.

aqueduct and still be so well four years after operation.

Case 2—R. G., male, age 9, was admitted to the neurosurgical service of the Charleston General Hospital, April 14, 1943, upon the suggestion of Dr. E. C. Hartman of Parkersburg, W. Va., because of headache, vomiting, staggering and a marked papilledema with retinal hemorrhages.

He had complained of headache, more or less constant for seven months, with nausea and, upon occasion, vomiting. Recently his parents noticed that he staggered and medical aid was sought. There was no history of recent injury or infection. There were no physical findings of note and his past and family histories were noncontributory.

He presented the following neurological signs and symptoms: Extreme edema of both optic nerve heads with retinal hemorrhages but with no field defects. No nystagmus or ocular muscle palsies were present and all cranial nerves were intact. There were no motor, sensory or reflex changes. His gait was somewhat ataxic, especially when attempting to walk a straight line, although there was no lateral pulsion. His finger to nose and heel to knee tests were carried out with great difficulty. There was suboccipital tenderness, about equal on both sides. MacEwen's sign was positive. His routine laboratory studies were negative while x-rays of the skull showed a widening of the sutres, and irregular thinning of the bones of the skull, indicative of increased intracranial pressure.

Operation was carried out April 21, 1943, under avertin-ether anesthesia. Ventricular estimation revealed both lateral ventricles dilated with a prompt crossing of the dye. The usual cerebellar craniotomy was then carried out and the dura opened, exposing both cerebellar lobes. The cisterna magna was obliterated by the backward bulging of a grayish-red tumor mass occupying the entire vermis. The solid tumor mass was well demarcated and was subtotally removed by suction.

Because of the expected recurrence of this tumor, it was felt that ventriculocisternostomy might be of value later, so a No. 8 French catheter was placed in the left posterior horn, secured to the dura, and then passed under the scalp and sutured to the undersurface of the dura over the cisterna magna. The dura was closed, and the wound was closed in layers in the usual manner. The paraffin sections later confirmed the diagnosis by frozen section of protoplasmic astrocytoma. His postoperative recovery was uneventful and he left the hospital May 11, 1943.

His mother reports that he is now an "A" student in school while Doctor Hartman reports December 28, 1945 (2¾ years after operation): "He has had no symptoms whatsoever that would indicate his old trouble. Upon questioning him the only indication he has had is a slight headache following extreme exertion, like wrestling, boxing, and playing as a boy of his age would do. His vision is 20/20 in each eye with no limitation of the fields of vision.

Case No. 3, showing tube and patient 18 months after operation.

He is going to school every day and apparently is in the best of health."

Case 3—N. C. H., female, age 6, was admitted to the neurosurgical service of the Charleston General Hospital, September 26, 1944, at the suggestion of Drs. A. M. Jones and M. A. Gilmore of Parkersburg, W. Va.

The patient's mother stated that the child was thought to be perfectly well until January, 1944, when she had a head cold, and about two weeks later, a bilateral otitis media. In June or July it was noticed that she was staggering, and for about three weeks before admission she suffered considerably from headache but there had been very little vomiting. She had complained of dizziness since July. She was quite ataxic in her gait, tending to fall to either side or backward, there being a marked decomposition of coordinated movement, about equal on both sides. There was no nystagmus but her optic nerve heads showed moderate edema. There were no motor, sensory or reflex changes. Skull plates revealed a suture separation, irregular thinning of the inner table of the skull, with erosion of the anterior and posterior clinoids as well as the floor of the sella, indicating an increased intracranial pressure. Routine laboratory studies were normal. She was suspected of having a midline posterior fossa tumor.

Operation was performed September 27, 1944, under intratracheal ether anesthesia. Ventricular estimation revealed symmetrically dilated ventricles with a prompt crossing of the dye. This was followed by the usual cerebellar craniotomy. After the dura was opened, it was noted that the cisterna magna was full of fluid. The vermis and both cerebellar lobes were normal upon inspection and palpation, and brain needle puncture revealed no cyst or solid tumor. The angles revealed no evidence of tumor. The vermis was split and the fourth ventricle was explored. No dye colored fluid could be seen coming from the aqueduct, so a ventriculo-cisternostomy was done, the catheter being placed in the left posterior horn, secured to the dura, carried under the scalp, and anchored to the under surface of the dura over the cisterna magna. The dura was closed, and the wound closed in layers in the usual manner. Her postoperative convalescence was uneventful and she was allowed to return to her home by ambulance on October 8, 1944.

Her pressure signs soon abated and in due season her ataxia and decomposition of coordinated movement almost completely disappeared. Her mother writes under date of December 15, 1945, as follows: "She has grown about seven inches taller. She is slim but weighs 58 pounds. She can hop on one leg or walk a straight line which she could not do before. Her gait is perfect . . . and she has no fear of falling while walking or going downstairs as she did before operation. She is more active than she has ever been in her life. She loves to study and learns easily. The teacher reports to me that she is doing fine work and is an 'A' student. She is apparently as healthy as the average child."

Case 4—W. M., male, age 15, was referred to the neurosurgical service of the Charleston General Hospital by Dr. J. S. Hayman of Huntington, W. Va., because of headache, and nausea and vomiting of two weeks' duration.

The only finding of any significance upon either physical or neurological examination was a papilledema of considerable degree. All other cranial nerves were intact and there were no motor, sensory or reflex changes. There was no evidence of any decomposition of coordinated movement. His past history revealed only that he had been struck in the left cheek with a board, five weeks previously but he had not been knocked down or rendered unconscious, and apparently had suffered no ill effects from this injury. He had been quite athletic and had always enjoyed excellent physical health. Routine laboratory studies were all within normal range. A ventricular air study was carried out December 11, 1945, after skull x-rays had shown no pathological change. One hundred cc. of ventricular fluid was removed from the right posterior horn, left side up, and replaced with a like quantity of air. Ventriculography showed a moderate diffuse enlargement of the lateral and third ventricles. Neither the aqueduct nor the fourth ventricle was visualized.

A cerebellar craniotomy was then carried out and upon opening the dura the cisterna magna was found to be full of fluid. The vermis and both cerebellar lobes appeared to be normal on both inspection and palpation, and the cannula failed to show cyst or solid tumor in either. The angles were negative, and the vermis was split and the fourth ventricle was explored and found to be negative. One-half cc. of indigo carmine was injected into the posterior horn but no dye colored fluid was seen com-

ing from the aqueduct. A small catheter was then placed in the right posterior horn, secured to the dura, then carried out under the scalp and sutured to the undersurface of the dura over the cisterna magna. The dura was closed as tightly as possible and the wound closed in the usual manner. He was promptly relieved of his headaches, and, when he left the hospital, his choked disc was subsiding, and his convalescence was progressing nicely.

SUMMARY

Four cases are reported in which the palliative procedure of ventriculocisternostomy, as devised by Torkildsen, was carried out. All four patients were children: three boys and one girl, ages 6, 8, 9 and 15 years. Their apparent present good health thoroughly justifies this procedure. The exact nature of the obstructive lesions in cases 1, 3, and 4 was not verified at operation, but case 2 was that of a protoplasmic astrocytoma of the vermis which was subtotally removed. Cases 1, 2, and 3 presented symptoms suggesting a posterior fossa tumor while case 4 showed no localizing neurological signs and presented only a choked disc. Cases 1, 3, and 4 showed a full cisterna magna upon opening the dura, while case 2 (astrocytoma of vermis) showed this space to be obliterated.

It is interesting to note, in view of the internal hydrocephalus of considerable degree present in these cases, that three of the patients have returned to school and are "A" students. Case 4 is of too recent origin to justify any conclusions.

The indication for ventriculocisternostomy in cases 1, 3, and 4 was that the dye placed in the ventricle could not be obtained from the aqueduct when ventricular estimation or ventriculography had shown the foramina of Monro to be patent. The procedure in case 2 should prove useful when there is a recurrence of his known tumor of the vermis which was subtotally removed.

Comparison of the preoperative skull plates and those made nearly four years postoperatively in case 1, confirms the observations of Oldberg[4] as to the regressive bone changes following relief of increased intracranial pressure after a ventriculocisternostomy.

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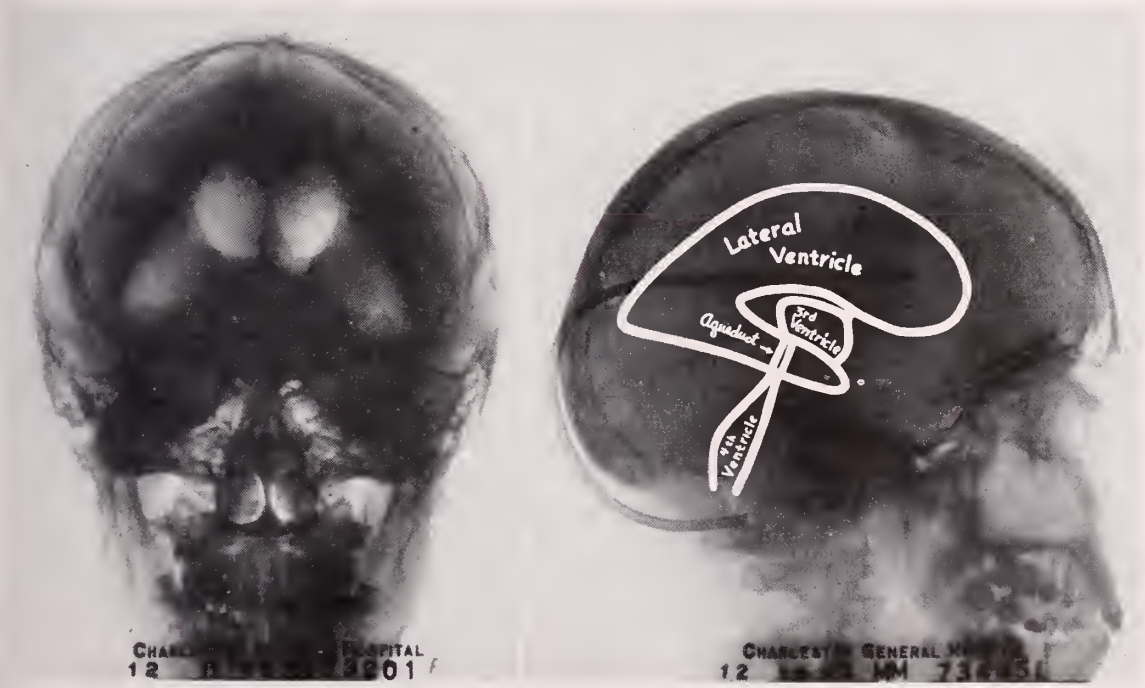

Case No. 4, showing symmetrically dilated lateral and third ventricles without shift and cast of ventricular system with tube in place.

The President's Page

The membership of our Association cannot be unconcerned with the trends of our modern society today. If we remain aloof from all the activities dealing with our status, we most surely will live to regret our indifference. Moreover, we may find ourselves embarrassed by defeatist legislation or arbitrary regimentation. We may soon witness an already tax-burdened citizenry further taxed to support unwise and dubious projects. Our hands may be so tied that our professional efficiency may be handicapped.

No useful purpose is served by spending money foolishly. Experiments ought not to be undertaken where an economic need has not been shown to exist or where the chance for success is doubtful. Change is not justified unless there is some proven reason for it beyond a restless, unmotivated desire to change.

All this leads up to the relationship of politics to medicine. On every side one hears the phrase "No Politics in Medicine." I am one of those who feel that if we look at politics in its original meaning, medicine has plenty of room for it. It ought to mean not only the desire to rule, but also the desire to serve. And the willingness to serve ought to be dominant.

The care of the public health is the first duty of the statesman. The safeguarding and improvement of public health is rightly an important function of the state. It is my belief that the term "politics" has been degraded from its original meaning. Properly it is a part of the philosophy which deals with sound government, the attempt of men to work out satisfying relations with their fellowmen as they struggle to live together harmoniously.

To all these things we cannot longer be indifferent. If the social and economic changes promulgated are to contribute wisely to medical progress, the physician should play a leading role in determining what changes are needed in our present system of practice. Just more doctors, more hospitals, and more money given to the people to spend for health is not assurance of better health. Better facilities in teaching institutions, as well as better teachers in these institutions, would make better doctors, who in turn would give better service to their patients.

Andrew E. Derick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journal, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

HUNTINGTON IN MAY

This is the last call for the annual convention at Huntington, May 13-15. Members of the State Medical Association and the Woman's Auxiliary who have hesitated in the least about making the trip to that city need but a glance at the programs that are printed in this issue of The Journal to convince them that this is one meeting that they cannot afford to miss.

The biggest "headache" in making preparations for this annual event has been the matter of hotel accommodations. Most of the hotels are booked to capacity, but Dr. James S. Klumpp, of Huntington, and the members of his committee on general arrangements, are doing a fine job providing rooms for doctors and their wives who have failed to obtain reservations. They give us the assurance that rooms will be found for all members who come to the meeting, but it is important that wants be made known immediately.

Many doctors and members of the auxiliary who live in nearby cities will commute to Huntington daily during the convention, and we have no doubt that those from a distance will be able to find suitable accommodations in the city that is known the country over for its hospitality.

THANKS, STATE HEALTH OFFICERS!

We have information to the effect that the question of Federal sickness insurance, as provided for in one section of the Murray-Wagner-Dingell Bill, was presented to the recent Conference of State and Territorial Health Officers in Washington and unanimously rejected by that body. While we have watched the daily press for some report of this action and seen none, we believe this information to be correct. Our congratulations to these officials upon the sanity of their attitude towards this very controversial subject.

DOCTOR WEST RETIRES

Dr. Olin West, for almost a quarter of a century secretary of the American Medical Association, recently tendered his resignation to the Board of Trustees of that organiation, effective April 1. Probably no contemporary name in medicine is more familiar to the rank and file of physicians than is that of Olin West, who has stood as the sentinel of medicine during the trying decade and a half just preceding today.

Doctor West was born in Gadsden, Alabama, July 12, 1874, and received his preliminary education at Howard College in that state. He was the son of a Methodist minister, Reverend Anson West, who was a great admirer of the intrepid pioneer Methodist, Stephen Olin. Hence the name Olin.

After leaving Howard College Doctor West entered Vanderbilt, where he received a Ph. G. in 1895 and an M. D. in 1898. A member of the teaching staff even before he received his doctorate, he retained his teaching affiliation until 1910 when he became director of the Rockefeller Sanitary Commission and International Health Board in Tennessee. In 1918 he was appointed secretary of the Tennessee State Board of Health, but resigned that position to become field secretary of the American Medical Association in 1922. Dr. Alexander R. Craig, who was secretary at the time of Doctor West's appointment as field secretary, died shortly afterwards and Doctor West was elected his successor. When Dr. George H. Simmons resigned as Editor and General Manager in 1924, Doctor West became Secretary-General Manager, which position he has since held.

It is not an overstatement to say that the present commanding position of the American Medical Association, not only in the medical world but among professional organizations generally, is very largely due to the untiring efforts of Olin West. While he has been the sentinel of medicine, he has been its guidepost as well. His clear foresight, outstanding ability, unceasing work, sterling honesty, and above all his human characteristics—friendliness, geniality, ready wit, and aptness as a storyteller—have endeared him to thousands of physicians throughout America. Our best wishes go with him in his retirement.

THE STATE CANCER PROGRAM

Cancer can be treated effectively only when it is discovered. Delay in discovery may mean death. That is why those who know plead with you to have a regular, complete health examination at least once a year, and preferably twice. And those same authorities give this comforting advice: "Don't be afraid of cancer; just be afraid of not discovering it early!"

In 1943, the West Virginia Legislature, on the personal plea of Governor Neely, instituted a cancer control program for the state. It was financed by a small appropriation, only $50,000 a year; but so well has it been planned and carried out that the taxpayers have gotten more for their money than they ever have from any other public expenditure.

The program was started modestly and moderately. It was arranged to give aid to those who need it, but only to the extent of the need. A person able to pay his own way, is required to pay it; those who can pay part, but not all, are required to contribute their part. The plan is cooperative, not paternalistic. There are no hand-outs.

Three of the vital ingredients of the program are courage, hope and education. The doctors of West Virginia are cooperating, and they are becoming cancer conscious. Seven tumor clinics have already been established, not by the state, but by private hospitals and medical societies. More are in the making.

Having demonstrated how much good they could do with the modest appropriation with which they started, those in charge of the program now need more money; and they will ask the next Legislature for it. Limited funds now mean that the doctor with an indigent cancer patient must deliver the hard judgment of life or death for that patient. He must choose cases which he believes are curable; he cannot take on all the cases. No doctor should be forced to make such a decision because of lack of money. Even the apparently incurable case sometimes yields successfully to treatment.

Sentiment among those concerned with cancer control is strong for the enactment by Congress of the Neely bill providing federal funds for aiding cancer control programs. That money is needed desperately; and no money appropriated by Congress could be used in a more beneficent cause.—Calvert L. Estill in Wheeling Intelligencer.

ELECTROSHOCK TREATMENT

In psychiatry itself, one of the most effective treatments yet devised is the electroshock treatment for depressions. The skill comes not in giving the treatment but in diagnosing the disorder, particularly in its early stages, when the first symptoms are likely to be somatic in nature. Loss of sleep, gastro-intestinal complaints, and loss of energy are the early symptoms. Because of the danger of suicide and sometimes of homocide, the illness is not one that can lightly be dismissed. The treatment, which is highly effective, is much more closely related to physical medicine than psychotherapy. Yet most general hospitals are not equipped to give such patients protection or nursing care. Such patients are not "insane" in the generally accepted meaning of the word, and in the majority of cases come to a psychiatric clinic as "voluntary" patients as opposed to "committed."—Wilbur R. Miller, M. D., in Jr. Iowa St. Med. Soc.

ORIGIN OF CESAREAN SECTION

Palmer Findley, in his Priests of Lucina, says that "so far as the records show the cesarean operation was not performed on the living woman in the time of Julius Caesar. This fact should effectually dispose of the popular belief that the name of the operation was derived from the alleged manner of birth of Julius Caesar. It is the censensus that the name was derived from the lex regia, in which it was ordered that an abdominal section must be performed on all dead and dying women when in the advanced state of pregnancy. Later, the lex regia became known as the lex cesaria and from this law the name cesarean was derived."

The earliest authenticated cesarean on a living woman was performed in 1500 by Jacob Nufer, a butcher who specialized in the gelding of sows. In Bauhin's account of the event (Fr. Rousset, Basle, 1588) at Sigerhausen, it is recorded that he "locked the door, offered prayer, placed his wife on the table, and cut her abdomen open. The cut was so skillfully done that the child was removed at once without injury . . . Later his wife gave birth to twins, and gave birth four times more. The child which was cut from her body lived 77 years."

The Julius Caesar legend does not hold up in the light of the historic facts.—Medical Times.

General News

STATE MEDICAL ASSOCIATION READY FOR ANNUAL MEETING AT HUNTINGTON

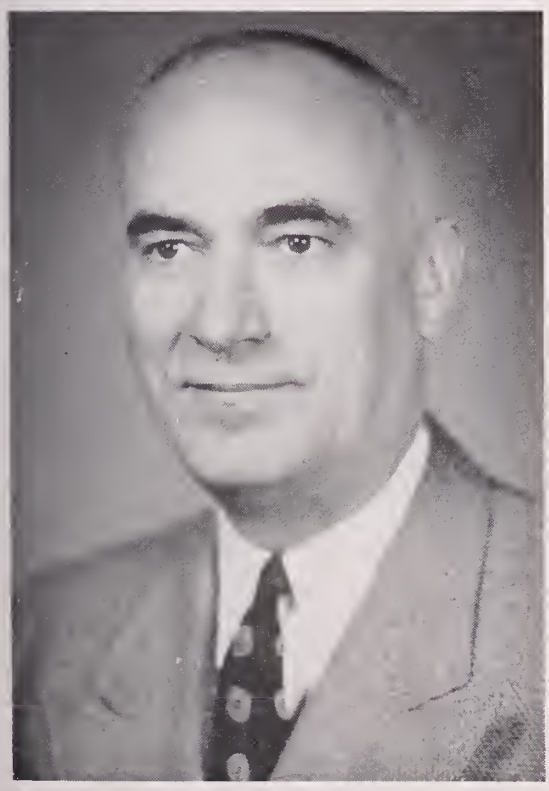
The 79th annual meeting of the West Virginia State Medical Association, at Huntington, May 13-15, will be a "Victory Meeting" in more ways than one.

For the first time since 1941, a full three-day meeting will be held. The idea of having general sessions instead of section meetings has proved to be so popular that the scientific work committee has again eliminated meetings of sections and scheduled general sessions instead.

Opening ceremonies are scheduled for 9:30 o'clock Monday morning, May 13, with Dr. Andrew E. Amick, of Charleston, president of the State Medical Association. presiding. The first general session will begin at 10:00 o'clock with Dr. R. Glen Spurling, of Louisville, presenting a paper on, "Intervertebral Disc Surgery."

Services Represented

Prominent among the speakers accepting invitations are several who just recently saw service in World War II. Dr. R. Glen Spurling, of Louisville, clinical professor of neuro-surgery at the University of Louisville School of Medicine, served as chief of the neurological division at Walter Reed General Hospital from 1942 to 1944, and was senior consultant in neuro-surgery in the ETO for over a year. It will be recalled that Doctor Spurling, then Lieutenant Colonel in the Army Medical Corps, was called by plane to the bedside of General George W. Patton in Germany after the automobile accident in which he sustained injuries which finally resulted in his death.



Dr. Andrew E. Amick, President

Governor Clarence W. Meadows

Dr. Edmund Eastwood, director of the out-patient service of the veterans administration, and Dr. George F. Lull, secretary of the American Medical Association, will both be present. During World War II, Doctor Lull served as deputy surgeon general of the army, with the rank of Major General.

Dr. William M. Sheppe, of Wheeling, was just recently released from the navy with the rank of Captain; Major Victor Kugel (MC) is still serving as chief of the cardiovascular section at Ashford General Hospital, and Colonel J. E. Ash (MC) is the director of the Army Institute of Pathology, at Washington. Lt. Col. Howard A. Swart (MC) of Charleston, who is on the program for May 15, is chief of the orthopedic section at the Newton D. Baker General Hospital, in Martinsburg.

Governor Meadows on Program

Governor Clarence W. Meadows will address a general assembly Tuesday night, May 14, at 8 P. M. His subject will be "Whose Responsibility?" He will discuss the responsibility of both the state and the medical profession for providing good medical care for all of the people of West Virginia.

Dr. Frank H. Krusen, of the Mayo Clinic, will follow Governor Meadows on the program. His subject is "Physical Rehabilitation in Civilian Practice. Dr. Krusen is Professor of Physical Medicine at the Mayo Foundation, University of Minnesota.

Question and Answer Periods

The program, which is printed in this issue of The Journal, shows that some of the most outstanding doctors in the country have accepted invitations as speakers at the meeting. The committee has arranged two interesting night sessions, and the meetings of the House of Delegates will be held Monday and Tuesday in the afternoon.

There will be no discussion period following presentation of papers, but there will be a question and answer period of several minutes, with the guest speaker in charge.

All sessions will begin and end promptly on time. It is necessary that the schedule be maintained if all speakers are to have the time allotted to them. Luncheons will end ten minutes before the beginning of the afternoon sessions in order that all present may return to the ballroom in time for the beginning of the afternoon session.

Golf Tournament

For the first time in several years, a golf tournament has been arranged, with play scheduled for the Guyan Country Club. The banquet, which will be held Wednesday evening, will be followed by a dance. There will be no formal addresses at the banquet, but a floor show will be staged during the dinner hour.

Rehabilitation Dinner

In addition to the usual luncheons of sections, societies, and alumni associations, a "Rehabilitation Dinner," sponsored by the American Legion, has been arranged for the second day of the meeting, May 14, at the Prichard Hotel, at 6:00 P. M. Arrangements for the dinner are being made by Dr. Benjamin I. Golden, chairman of the Medical Advisory Committee of the American Legion, Department of West Virginia. All members of the West Virginia State Medical Association are invited to attend. Short addresses will be delivered by Dr. Donald A. Covalt, assistant medical director of the Veterans Administration; Dr. Leonard Rowntree, chief medical advisor of the American Legion; and, Dr. H. D. Shapiro, senior medical consultant. A complete list of all breakfasts, luncheons, and dinners is printed in this issue of The Journal in connection with the program for the annual meeting.

The matter of rooms is still causing a great deal of concern, but the committee on local arrangements, of which Dr. James S. Klumpp, of Huntington, is chairman, has succeeded in finding satisfactory accommodations for many doctors who have been unable to obtain rooms at Huntington hotels.

Registration on Sunday

The annual meeting of the publication committee will be held at 11:30 A. M. Sunday, May 12, followed by the preconvention meeting of the Council at 1:00 P. M. The registration booth in the lobby at the Prichard Hotel will be opened at 3 o'clock Sunday afternoon, and doctors are urged to register just as soon as they reach Huntington. There will be no registration fee.

STATE MEDICAL ASSOCIATION DENIED RIGHT TO APPEAR AT W-M-D HEARINGS

The application of the West Virginia State Medical Association for time for representatives to be heard before the Senate committee on education and labor in opposition to the Wagner-Murray-Dingell Bill has been denied.

Considerable preparation had been made by the Association for the appearance of its representatives before the committee, and, while it had been thought doubtful that all members of the committee would be heard, it was assumed that the State Medical Association would be allotted a definite period of time to be used as the committee deemed wise. The refusal of the chairman, Senator James E. Murray, to allot time to this state was unexpected, but it now develops that no time has been allotted to any State Medical Association. Chairman Murray, in a wire dated March 28, stated that, "there will not be time for representatives of State Medical Associations to appear in person. Nevertheless, I am looking forward to receiving your written statement at the earliest possible time." This wire followed a form letter from Senator Murray, in which it was indicated that the state representatives would not be heard.

Subsequently, no doubt due to the pressure that has been exerted by State Medical Associations over the country, a sub-committee was appointed by Chairman Murray "to review the large number of applications for time that has been received from various organizations." The committee was instructed by the chairman to report to the full committee which organizations at state and local levels should be invited to present witnesses.

It is still hoped that the opportunity will be afforded the State Medical Association to present oral testimony in opposition to the Wagner-Murray-Dingell Bill. The committee, which has been preparing for the hearings, is composed of Drs. Ray M. Bobbitt, D. A. MacGregor, Bert Bradford, Jr., William R. Laird, Frank V. Langfitt, Thomas L. Harris, and James P. McMullen.

HEALTH OFFICERS OPPOSE W-M-D BILL

At a meeting of the state and territorial health officers held at Washington, April 8, those present voted unanimously against the provisions of the Wagner-Murray-Dingell Bill that provides for the socialization of medicine. It was ordered that the report of the action taken be presented to the Children's Bureau, the United States Public Health Service, and appropriate committees of Congress. Dr. Bruce H. Pollock, deputy health commissioner, represented West Virginia at the meeting.

DR. HUNTER NAMED TO BOARD

Dr. J. Ross Hunter, of Charleston, has been named a member of the executive board of the American Cancer Society. He is chairman of the cancer committee of the West Virginia State Medical Association and has long been identified with local, state, and national organizations engaged in the fight against cancer.

DR. LULL SUCCEEDS DR. WEST

Dr. George Fairless Lull has been named Acting Secretary and General Manager of the American Medical Association to complete the unexpired term of Dr. Olin West who resigned effective April 1.

Dr. Lull, who is a native of Scranton, Pennsylvania, graduated at Jefferson Medical College in 1909. In 1912 he was admitted to the Medical Corps of the United States Army. During World War II he was Deputy Surgeon General with the rank of Major General. He retired from the Army December 31, 1945.

Dr. Lull is a Fellow of the College of Physicians and also of the College of Surgeons, and a wearer of the Purple Heart. He brings to the American Medical Association a wealth of experience in organization.

HEALTH EDUCATION WORKSHOPS

The state health department and the department of education have jointly set up a coordinating committee for health education. The principal objectives are to study recent developments and trends in health education, including school-community organization for health education and health welfare, community resources for health education, functional activities for students in health education, and health education materials.

Health education workshops are being offered at the summer terms at West Virginia University, Marshall College, West Virginia State College, and Bluefield State College. Undergraduate and graduate credit on renewal of teacher's certificates will be given for the two weeks spent in the workshops. Consultants will be specialists from the state health department, the department of education, and various colleges.

The courses offered are designed to aid school administrators, nurses, community leaders, and teachers interested in health education to obtain assistance and guidance in developing plans for improving health programs in accordance with modern health education procedures.

Mrs. Ruth J. Frantz, publicity director of the bureau of public health education and public relations of the state health department, and Miss Katherine Steinbicker, consultant for the community health service project of the department of education, are co-chairman of the new committee.

DOCTOR HEDRICK HONORED

Dr. E. H. Hedrick, of Beckley, Representative in Congress from the Sixth District, has been appointed a member of the World War Veterans' Legislative Committee in the House. His appointment was made upon the recommendation of Congressman Robertson, of Virginia, member of the House Ways and Means Committee, after the veterans' committee requested that a doctor be named as a member.

At the time of his election to Congress, Doctor Hedrick was serving as superintendent of Pinecrest Sanitarium, at Beckley. Previously he had served as medical examiner for the veterans' administration and as city health officer at Beckley.

WOMAN'S AUXILIARY COMPLETES PLANS FOR HUNTINGTON MEETING

The Woman's Auxiliary to the West Virginia State Medical Association resumes its annual meeting this year at Huntington. Last year's meeting was cancelled on account of the ODT ban on conventions and transportation, but instead a meeting of the executive board was held at Clarksburg. The last general session was held at Wheeling in 1944.

Mrs. U. G. McClure, the president, and the members of her convention committee, have arranged an interesting two-day program, high-lighted by the presence of Mrs. W. W. Potter, of Knoxville, Tennessee, president of the Woman's Auxiliary to the Southern Medical Association. Mrs. Potter will install the new officers on Wednesday morning, May 15, and will be the guest speaker at the luncheon at the Hotel Governor Cabell that afternoon at one o'clock. Her subject will be the "Jane Todd Crawford Memorial."

On Tuesday, May 14, Col. J. E. Ash (MC), director of the Army Institute of Pathology, at Washington, will deliver the principal address at a luncheon at the Governor Cabell Hotel. The honor guests at the luncheon will include Dr. Andrew E. Amick, president of the West Virginia State Medical Association, Dr. J. H. Barker, president of the Cabell County Medical Society, and members of the auxiliary advisory board.

The registration booth will be opened in the lobby of the Governor Cabell Hotel, Monday afternoon, May 13, at two o'clock, and a pre-convention meeting of the board is scheduled for 4:00 P. M.

Mrs. U. G. McClure, who has served as president of the auxiliary during the past year, will preside

Mrs. U. G. McClure, Auxiliary President

Mrs. W. W. Potter

at all of the sessions. The incoming president, Mrs. Delmas E. Greeneltch, of Wheeling, will be in charge of the post-convention meeting of the board immediately after the luncheon on Wednesday.

The Cabell County Auxiliary will be hostess at an open house at the Hotel Governor Cabell at three o'clock Tuesday afternoon, May 14.

THIRD REFRESHER COURSE

The third of four refresher courses given conjointly and alternately by the Medical College of Virginia and the department of medicine of the University of Virginia every three months for one year will be held at Charlottesville, June 3-15. The courses are designed primarily as intensive courses in general medicine. They consist of lectures and ward rounds by local staff members.

While medical veterans will be given priority in acceptance, the courses are open to all physicians up to a quota of fifty registrants. Interested doctors should write Box 1725, University Station, Charlottesville, Virginia, for application blank and program. The tuition for the two weeks' course is $40.00.

GOLF TOURNAMENT

A golf tournament for doctors attending the annual meeting at Huntington, May 13-15, has been arranged by the Junior Medical Review Society of the Cabell County Medical Society. Tournament play is scheduled for Monday, Tuesday, and Wednesday, with prizes for low gross and low net, and a blind bogey trophy. The trophy and prizes will be presented at the annual banquet Wednesday evening, May 15. Doctors who expect to play in the tournament are requested to present a certified copy of their handicap.

RELOCATIONS

Dr. W. P. Warden, of Wardensville, has moved to Charles Town.

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Dr. L. Williams has moved to Meadow Bridge. He was formerly located at Beelick Knob.

* * *

Dr. Joseph L. Greene, formerly of Huntington, is located at Logan.

* * *

Dr. J. H. Murry has moved from Eckman to Kimball.

* * *

Dr. Thomas B. Pope, formerly of Kingston, is now located at Petersburg, Virginia.

* * *

Dr. W. J. Judy, formerly of Beckley, who has been located at Salisbury, North Carolina, has relocated for the practice of his profession at Parkersburg.

* * *

Dr. M. G. Magnussen, who has been on the staff at St. Luke's Hospital, at Bluefield, has relocated at Ashland, Kentucky, where he has offices in the Second National Bank Building.

* * *

Dr. William W. Davis, of Oak Hill, has moved to Parkersburg and has located at 922 Market Street.

FELLOWSHIPS IN HEALTH EDUCATION

The United States Public Health Service is offering fellowships for one year of graduate study in health education, leading to a master's degree in public health, through funds made available by the National Foundation for Infantile Paralysis. Training will be provided in an accredited school of public health, and a stipend of $100.00 per month will be provided for the entire period of academic and field training. Tuition and travel expenses for field experience are also provided. The fellowships are effective for the academic year beginning in the fall of 1946. Application blanks may be obtained from the Surgeon General of the USPHS, Washington 25, D. C. Applications must be filed not later than June 1, 1946.

ANNUAL BANQUET

Dr. Robert J. Reed, Jr., of Wheeling, past president of the State Medical Association, has been selected as toastmaster for the annual banquet to be held in connection with the 79th annual meeting of the State Medical Association at Huntington. The banquet is scheduled for Wednesday evening, May 15, at 7:30 P. M. No formal addresses will be presented, but a high-class floor show will be staged during the banquet hour.

The Cabell County Medical Society will be host at an open house to be held at the Prichard Hotel at 6:30 P. M. the evening of the banquet.

DR. OFFNER RECOVERING

Dr. J. E. Offner, state health commissioner, has been absent from his desk in Charleston since late in March, when he underwent a major operation at Fairmont. He is convalescing satisfactorily at his home in that city and expects to resume his duties in Charleston early in May.

CONVENTION PROGRAM

79th Annual Meeting

of the

West Virginia State Medical Association

PRICHARD HOTEL, HUNTINGTON

May 13-15, 1946

SUNDAY MORNING
May 12

11:30—Meeting of the Publication Committee, Prichard Hotel.

Dr. Walter E. Vest, *presiding.*

SUNDAY AFTERNOON

1:00—Pre-Convention meeting of the Council, Prichard Hotel.

Dr. Thomas L. Harris, *presiding.*

3:00—Registration, Lobby, Prichard Hotel.

SUNDAY EVENING

6:30—Past President's Dinner, Guyan Country Club.

Hosts, Drs. James R. Bloss, T. W. Moore, Walter E. Vest, Ray M. Bobbitt, and R. J. Wilkinson.

MONDAY MORNING
May 13

9:30—Call to Order—Dr. Andrew E. Amick, President, Charleston.

Invocation—The Rev. Andrew D. Bird, Pastor, First Presbyterian Church, Huntington.

Address of Welcome—J. F. Barker, President, Cabell County Medical Society.

Response—Ben I. Golden, M. D., Elkins.

10:00—"Intervertebral Disc Surgery"—R. Glen Spurling, M. D., Louisville, Ky.

The diagnosis and surgical management of lumbar intervertebral discs and the less common cervical discs will be discussed.

Wm. R. Laird, M. D., *presiding.*

11:00—"Pediatric Allergy" — Robert Chobot, M. D., New York, N. Y.

The problem of therapy in Pediatric Allergy depends on an accurate diagnosis. The diagnosis of most allergic conditions in children can be summarized by saying that they are either the result of sensitivity to foods or inhalant substances or to bacteria. The one test most freuently overlooked is that of clinical contact with the allergen. By the proper use of diagnostic measures and adequate thereapy as applied to foci of infection as well as to the hypersensitive state, we are usually able to cope with most of the clinical problems.

A. A. Shawkey, M. D., *presiding.*

CONVENTION SPEAKERS

R. Glen Spurling, M. D.

Robt. Chobot, M. D.

J. Morrison, Hutcheson, M. D.

W. M. Sheppe, M. D.

MONDAY AFTERNOON

12:15—Society and Section Luncheons (As Announced).

2:00—ORATION IN SURGERY.

"Spontaneous Rupture of the Normal and Abnormal Spleen"—Hugh A. Bailey, M. D., Charleston, W. Va.

Andrew E. Amick, M. D., *presiding.*

2:45—"The Evolution of the Art of Medicine" —J. Morrison Hutcheson, M. D., Richmond, Va.

Medical practice had its beginning in belief in the supernatural and was dominated by this principle for many centuries. Though man's knowledge has grown immensely, his fundamental nature has changed little. Regardless of the growth of science, emancipation from magic and superstition has been difficult. Evidence of this common heritage of patient and doctor in modern practice is discussed.

Raymond Sloan, M. D., *presiding.*

3:00—"Some Observations on Renal Neoplasms" —Ray M. Bobbitt, M. D., and Ivan R. Harwood, M. D., Huntington, W. Va.

This paper will include observations made on a large series of renal tumors over a period of twenty-five years, with particular reference to symtomology, pathology, diagnosis, prognosis and treatment.

Herbert M. Beddow, M. D., *presiding.*

4:15—HOUSE OF DELEGATES (First Session) Ballroom.

MONDAY EVENING

8:00—ADDRESS OF THE PRESIDENT.

"Up to Now"—Andrew E. Amick, M. D., Charleston, W. Va.

B. S. Brake, M. D., *presiding.*

8:30—Introduction of Mrs. U. G. McClure, President, Woman's Auxiliary to the West Virginia State Medical Association.

8:40—Address by George F. Lull, M. D., Acting Secretary and General Manager, American Medical Association, Chicago, Ill.

Thomas L. Harris, M. D., *presiding.*

TUESDAY MORNING
May 14

9:30—ORATION IN MEDICINE.

"The Place of Penicillin in the Treatment of Syphilis"—W. M. Sheppe, M. D., Wheeling, W. Va.

Andrew E. Amick, M. D., *presiding.*

10:15—"Clinical and Electrocardiographic Observations in Cardiac Surgery"—Major Victor Kugel, M. C., AUS, Ashford General Hospital, W. Va.

Clinical and electrocardiographic observations are reported of two cases cured by surgery of heart. One case had a typical constrictive pericarditis; the other a bullet slug in the right ventricle. The effects of anesthesia, incision of heart and aseptic pericarditis on the EKG are described.

Frank J. Holroyd, M. D., *presiding.*

11:00—"Medical Care of Veterans"—Dr. Edmund Eastwood, Director of Out-Patient Service, Veterans Administration, Washington, D. C.

Claude B. Smith, M. D., *presiding.*

CONVENTION SPEAKERS

Maj. Victor Kugel, M. C.

Chevalier L. Jackson, M. D.

A. C. Corcoran, M. D.

Col. J. E. Ash, M. C.

TUESDAY AFTERNOON

12:15—Society and Section Luncheons (As Announced).

2:00—"Bronchoscopy as a Diagnostic Aid in Diseases of the Chest"—Chevalier L. Jackson, M. D., Philadelphia, Pa.

Verne L. Lance, M. D., *presiding.*

2:45—"The Advances in Treatment of Hypertension and Renal Disease"—A. C. Corcoran, M. D. Cleveland, Ohio.

The pathogenesis of hypertension has been greatly clarified by advances in both experimental and clinical study of the disease. The experimental approaches concern principally the mechanisms of renal hypertension and the nature of the renal pressor system: the clinical approaches deal with the newer methods of renal functional study and other aspects of appraisal and prognosis, which include the ballistocardiogram and the pressor and the sedation tests. Such tests may have particular significance in selection of patients for sympathectomy. The use of kidney extracts, vitamin A and thiocyanate in treatment can now in some degree also be evaluated.

Wm. C. Stewart, M. D., *presiding.*

3:30—"Filarial Infections"—Col. J. E. Ash, M. C., Director, Army Institute of Pathology, Washington, D. C.

This is a short discussion on the main species of filariae infecting man, including the geographic distribution, made of transmission, clinical manifestations, and pathology. Emphasis is placed on the two more important species — Wuchereria bancrofti, which was a problem during the war, and Onchocerca volvulus, of great economic importance in the endemic centers, and an interesting story.

W. G. J. Putschar, M. D., *presiding.*

4:15—HOUSE OF DELEGATES (Second Session) Ballroom.

Election of Officers.

TUESDAY EVENING

8:00—"Whose Responsibility?"—Governor Clarence W. Meadows, Charleston, W. Va.

Andrew E. Amick, M. D., *presiding.*

8:30—"Physical Rehabilitation in Civilian Practice"—Frank H. Krusen, M. D., Mayo Clinic, Rochester, Minn.

Rehabilitation fills the gap between the customary end point of medical attention and the real necessities of many patients. Intelligent employment of physical therapy, occupational therapy, psycho-social readjustment, and vocational training is essential for adequate rehabilitation. Good rehabilitation programs are now developing. Physicians should familiarize themselves with the recent advances in convalescent care.

Andrew E. Amick, M. D., *presiding.*

WEDNESDAY MORNING
May 15

9:30—"Abortion: Etiology, Prevention and Treatment" — Thaddeus L. Montgomery, M. D., Philadelphia, Pa.

Abortion in its various phases—the abortion problem in general, differential diagnosis of the stages of abortion, and a consideration of the special problems in septic abortion and in habitual abortion.

G. A. Ratcliff, M. D., *presiding.*

10:15—"Hernia"—John E. Cannaday, M. D., Charleston, W. Va.

Hernia: direct, indirect, femoral—the initial cause usually a misplaced embryonal remnant.

CONVENTION SPEAKERS

Frank H. Krusen, M. D.

T. L. Montgomery, M. D.

John E. Cannaday, M. D.

A. C. Ivy, M. D.

Reducible or strangulated: treatment.

Cure: isolation, excision sac; closure opening and reenforcement aponeurotic wall.

Technics: various methods dealing with various types of sac. McVay method. External oblique and transversalis fascia methods.

Suture materials: other types. Cutis Graft.

Raymond Sloan, M. D., *presiding.*

11:00—"The Physiology of Respiratory Diseases" —A. C. Ivy, M. D., Chicago, Ill.

The mechanism of the major symptoms and signs of pulmonary disease will be explained. For example, why does cyanosis occur early in some cases of pneumonia? Why is persistant cough an early symptom of cancer of the lung and hoarseness of cancer of the larynx? The mechanism of why oxygen therapy is a life saving procedure in certain conditions and not others will be explained.

Herbert M. Beddow, M. D., *presiding.*

WEDNESDAY AFTERNOON

12:15—Society and Section Luncheons (As Announced).

2:00—"Recent Progress in Thoracic Surgery" —Ralph Adams, M. D., Lahey Clinic, Boston, Mass.

A presentation of the accumulated experience and present practice in the diagnosis and surgical treatment of various intrathoracic lesions. The diseases considered will be bronchiectasis, carcinoma of the lung, lung abscess, benign tumors of the lung and esophagus, carcinoma of the esophagus, myasthenia gravis, certain mediastinal tumors and a few lesions of the heart amenable to surgical therapy.

Guy H. Michael, M. D., *presiding.*

2:45—"Reconstructive Surgery in an Army General Hospital"—Lt. Col. Howard A. Swart, M. C., AUS, Newton D. Baker General Hospital, Martinsburg, W. Va.

The results of over 200 cases of massive bonegrafts to the long bones, 400-500 cases of chronic osteomyelitis, including the new treatment by means of saucerization, immediate split skin grafting, followed by later pedicle or tube grafts and use of bone chips, if necessary. I will also touch on our results in cases of loose bodies of the knee, arthroplasty of the elbow, arthrodesis of the hip, knee, ankle, shoulder and elbow, and triple arthrodesis of the foot.

Guy H. Michael, M. D., *presiding.*

3:30—Psychiatric Seminar—Third and Final of a Series of Seminars Arranged by the Psychiatric Committee for 1945-46.

"Non-directive Psychotherapy"—John H. Mitchell, M. D., and the Rev. Father Charles Curran, Ph. D., Ohio State University School of Medicine, Columbus, Ohio.

O. B. Biern, M. D., *presiding.*

WEDNESDAY EVENING

6:30—Reception, Prichard Hotel, Cabell County Medical Society, *Host.*

7:30—Annual Banquet, Ballroom, Prichard Hotel. Robert J. Reed, Jr., M. D., Wheeling, *Toastmaster.*

9:00—Dance, Ballroom.

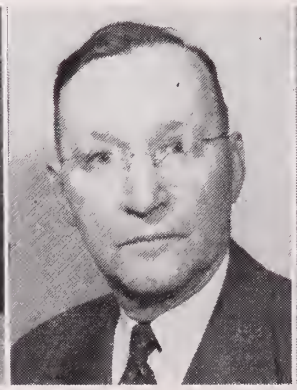
GOLF TOURNAMENT
Guyan Country Club, Huntington
May 13-14-15

Under auspices of Junior Medical Review Society of the Cabell County Medical Society. Prizes for low gross and low net. Blind bogey trophy. Doctors wishing to enter tournament will be expected to present certified copy of club handicaps.

CONVENTION SPEAKERS

Lt. Col. H. A. Swart, M. D.

Ralph Adams, M. D.



Edmund Eastwood, M. D.

John H. Mitchell, M. D.

CONVENTION SPEAKERS

DR. RALPH ADAMS, general and thoracic surgeon at the Lahey Clinic, Boston, since 1941; M. D. Harvard 1933; training at Massachusetts General Hospital, Boston, 1933 to 1941; author of some 35 articles in the literature of general and thoracic surgery.

DR. ANDREW E. AMICK, Charleston, West Virginia, graduated from Medical College of Virginia; interned Willard Parker Hospital, and served two years' residency at Babies Hospital, New York City; President, West Virginia State Medical Association.

COL. J. E. ASH, M. C., Director, Army Institute of Pathology, Washington, D. C.; graduated University of Pennsylvania School of Medicine; instructor in pathology for three years at Harvard Medical School; entered Army in 1916 and served in Army laboratories in Washington, San Francisco, and the Philippine Islands ever since; past eight years Director of the Army Institute of Pathology; awarded the Legion of Merit for work in World War II.

DR. HUGH A. BAILEY, Charleston, West Virginia; graduated University of Maryland School of Medicine; Buford-Bailey Surgical Clinic; Fellow American College of Surgeons.

DR. RAY M. BOBBITT, Huntington, West Virginia; graduated University of Maryland School of Medicine; Diplomate American Board of Urology; American Urological Association; past president West Virginia State Medical Association.

DR. JOHN E. CANNADAY, Charleston, West Virginia; director Charleston General Hospital and chief of surgical staff since 1922; graduate University College of Medicine, Richmond, Virginia; Fellow and member of Board of Governors for several years of American College of Surgeons; member Southern Surgical Association.

DR. ROBERT CHOBOT, New York, N. Y.; Assistant Clinical Professor of Pediatrics, Columbia University; Director of Children's Allergy Clinic, New York Post Graduate Hospital; Consultant in Allergy, Downtown Hospital; and Assistant Chief of Allergy at Roosevelt Hospital, New York City; first president of the American Academy of Allergy; American Board of Internal Medicine, and certified as a specialist in allergy.

DR. A. C. CORCORAN, Cleveland Clinic, Cleveland, Ohio; born in Waterloo, Quebec; graduated from McGill University School of Medicine; voluntary Fellow at the Hospital of Rockefeller Institute in the department of Dr. D. D. Van Slyke; Indianapolis City Hospital, Lilly Laboratories for Clinical Research for studies on hypertension and renal disease until January, 1945; now with Research Division of the Cleveland Clinic.

DR. IVAN R. HARWOOD, Huntington, West Virginia; graduated Medical College of Virginia, Richmond, 1930; interned C. and O. Hospital, Huntington; Urologist associated with Dr. Ray M. Bobbitt, at Huntington.

DR. J. MORRISON HUTCHESON, Richmond, Virginia; Professor of Clinical Medicine at Medical College of Virginia for past twenty years; past president of the Richmond Academy of Medicine and the Medical Society of Virginia; past governor, past vice president, and past regent of the American College of Physicians.

DR. A. C. IVY, Nathan Smith Davis Professor of Physiology, Northwestern University Medical School; graduated Rush Medical College; Chief, Scientific Director, Naval Medical Research Institute, 1942-43; Associate Editor, American Journal of Physiology; American Physiological Society (President 1939-42); author of some 500 papers dealing with physiology and experimental medicine; discovered the gall-bladder hormone cholecystokinin and the chalone for fat inhibition of gastric function.

DR. CHEVALIER L. JACKSON, professor of broncho-esophagology, Temple University School of Medicine, Philadelphia, Pa.; graduated University of Pennsylvania School of Medicine; developed technics of peroral endoscopy and laryngeal surgery; gave post graduate courses broncho-esophagology in Paris, France, 1937-39, Mexico City, 1942; Fellow American Academy Ophthalmology and Otolaryngology, American Laryngological Association; American Broncho-Esophagological Association; American Association of Thoracic Surgeons, etc.

DR. FRANK H. KRUSEN, Mayo Clinic, Rochester, Minnesota; graduated Jefferson Medical College; Associate in medicine and director of department of physical medicine, Temple University, 1929-35; associate dean, Temple University Medical School, 1925-35; entered Mayo Clinic as head of Section on Physical Medicine, 1935; professor of physical medicine, Mayo Foundation, University of Minnesota, 1941 to date; past president of the American Congress of Physical Medicine and recipient of its gold key award in 1944; chief consultant in physical medicine to the Veterans Administration; author of over 100 articles on various phases of medicine and physical medicine and of three books: **Light Therapy, Physical Therapy in Arthritis,** and **Physical Medicine.**

MAJ. VICTOR H. KUGEL, M. C., Chief, Cardiovascular Section, Ashford General Hospital, West Virginia; graduated Yale Medical School; fellowship at Rockefeller Hospital, New York City; private practice in New York City limited to Internal Medicine and Cardiology; American Board of Internal Medicine; Associate Attending Physician of City Hospital, New York City, and Chief of Medical and Consultation Clinics, Welfare Clinic; entered active duty December, 1942, and stationed at various Army general hospitals; chief of cardiovascular section Fletcher General Hospital, May, 1944 to February, 1946. Ashford General Hospital since February, 1946.

DR. GEORGE F. LULL, Chicago, Illinois; graduated Jefferson Medical College; Deputy Surgeon General of the Army with rank of Major General, World War II; retired from the Army, December 31, 1945; Acting Secretary and General Manager of the American Medical Association.

CLARENCE W. MEADOWS, Governor of West Virginia; born in Beckley, West Virginia; academic and pre-law work at Washington and Lee University; graduate of University of Alabama, 1927, LL. B.; honorary degree of LL. D., West Virginia University, 1945; Prosecuting Attorney of Raleigh County, 1933-36; Attorney General of West Virginia, 1937-40, and served until appointed Judge of the Tenth Judicial Circuit, May 16, 1942; elected Judge of this Circuit, November, 1942; elected the twenty-second Governor of the State in 1944, for term ending January 17, 1949.

DR. THADDEUS L. MONTGOMERY, Philadelphia, Pa.; Professor Obstetrics and Gynecology, Temple University School of Medicine; Professor of Obstetrics and Gynecology, Jefferson Medical College; American Board of Obstetrics and Gynecology; American Association of Obstetricians and Gynecologists; American Gynecological Society; Obstetrician and Gynecologist to Philadelphia General Hospital since 1944; author of **Textbook of Practical Obstetrics** (two editions) and many papers pertaining to obstetrics and gynecology.

DR. W. M. SHEPPE, Wheeling, West Virginia; graduate University of Virginia Department of Medicine, Charlottesville; Director of Peterson Laboratory at Ohio Valley General Hospital, Wheeling, 1923-26; Department of Internal Medicine, Wheeling Clinic; active duty U. S. Navy, July 12, 1941, to February 15, 1946; Captain (MC), USNR; American Board of Internal Medicine; American Society of Clinical Pathologists.

DR. R. GLEN SPURLING, Louisville, Kentucky; Clinical Professor of Neurosurgery, University of Louisville School of Medicine; Chief of Neurosurgical Division, Walter Reed Hospital, 1942-44; Senior Consultant in Neurosurgery for the European Theater of Operations, March, 1944, to July, 1945; Senior Consultant in Neurosurgery to the Veterans Administration, Central Office; author of some one hundred articles on neurosurgical subjects, and three books: **Practical Neurological Diagnosis** (three editions); **The Intervertebral Disc** (two editions); and **Cranial Cerebral Trauma, The Bancroft System of Surgery.**

LT. COL. HOWARD A. SWART, M. C., Charleston, West Virginia; Chief, Orthopedic Section, Newton D. Baker General Hospital, Martinsburg, W. Va.; graduated University of Toronto, Canada; interned Buffalo City Hospital, Buffalo, N. Y.; one year at the hospital for Ruptured and Crippled, New York City; six years in Orthopedic Surgery at Mayo Clinic, Rochester, Minn.; entered Army Medical Corps in October 1943.

DELEGATES AND ALTERNATES

B-R-T (3)—Delegates, Drs. Donald R. Roberts, Elkins; Hu C. Myers, Philippi; and Guy H. Michael, Parsons.

Boone County (2)—Delegates, Drs. H. H. Howell, Madison, and A. C. Lewis, Seth. Alternates, Drs. F. G. Prather, Wharton, and W. F. Harless, Madison.

Brooke County (1)—Delegate, Dr. F. L. Matson, Wellsburg.

Cabell County (6)—Delegates, Drs. C. A. Hoffman, Oscar B. Biern, Frank Hodges, John J. Brandabur, Chauncey B. Wright, and Don Kessler, of Huntington. Alternates, Drs. Warren Parsons, R. M. Wylie, Dorsey Ketchum, Raymond Sloan, and Gilbert Ratcliff, of Huntington.

Central West Virginia (3)—Delegates, Drs. J. M. Cofer, Bergoo; B. L. Page, Buckhannon; and R. M. Fisher, Weston. Alternates, Drs. T. H. Millman, Richwood; George D. Hill, Camden on Gauley; and M. T. Morrison, Sutton.

Doddridge County (1)—Delegate, Dr. A. Poole, West Union.

Eastern Panhandle (2)—Delegates, Drs. G. O. Martin, Martinsburg; and M. H. Porterfield, Martinsburg. Alternates, Drs. W. L. Haltom, Martinsburg; and Elizabeth McFetridge, Shepherdstown.

Fayette County (3)—Delegates, Drs. W. W. Scott, Oak Hill; J. B. Thompson, Oak Hill; and G. A. Smith, Montgomery. Alternates, Drs. Claude Frazier, Winona; and Eugene S. Carter, Jr., Montgomery.

Greenbrier Valley (2)—Delegate, Dr. A. G. Lanham, Ronceverte.

Hancock County (2)—Delegates, Drs. E. R. McNinch, Hollidays Cove; and Anthony Yurko, Hollidays Cove. Alternates, Drs. J. M. Brand, Chester; and T. H. Bruce, New Cumberland.

Harrison County (4)—Delegates, Drs. Wm. H. Allman, H. V. Thomas, S. S. Hall, and C. O. Post, Clarksburg. Alternates, Drs. D. H. Lough, E. B. Wright, and L. E. Neal, Clarksburg.

Kanawha County (10)—Delegates, Drs. T. P. Mantz, H. M. Beddow, H. A. Bailey, W. W. Point, P. A. Haley, W. F. Shirkey, G. F. Grisinger, R. L. Anderson, Russel Kessel, and Claude B. Smith, Charleston. Alternates, Drs. V. L. Peterson, John Lutz, Wm. A. Thornhill, Jr., W. L. Cooke, Ray Kessel, Bert Bradford, Jr., Joe Rucker, A. Spates Brady, Jr., John C. Condry, and John W. Hash, Charleston.

Logan County (3)—Delegate, Dr. W. P. Hamilton, Chapmanville.

Marion County (3)—Delegates, Drs. E. D. Wise, Fairmont; J. J. Jenkins, Farmington; and John P. Helmick, Fairmont. Alternates, Drs. J. P. Trach and E. O. Wright, Fairmont.

Marshall County (2)—Delegates, Drs. J. A. Striebich and Harold B. Ashworth, Moundsville. Alternates, Drs. Don S. Benson and R. B. Grimm, Cameron.

Mason County (1)—Delegate, Dr. C. Leonard Brown, Point Pleasant.

Mercer County (3)—Delegates, Drs. Frank J. Holroyd, Princeton; Wade H. St. Clair and Harry G. Steele, Bluefield. Alternates, Drs. W. C. Slusher and C. M. Scott, Bluefield.

Mingo County (2)—Delegates, Drs. John C. Lawson and George W. Easley, Williamson. Alternates, Drs. F. J. Burien and G. B. Irvine, Williamson.

Monongalia County (3)—Delegates, Drs. Margaret Stemple, E. F. Heiskell, and E. B. Tucker, Morgantown. Alternates, Drs. C. C. Romine and Charles F. Dent, Morgantown.

McDowell County (4)—Delegates, Drs. Irvine Saunders, Hendricks Bracey, Welch; J. A. Bennett, Davy; and J. Howard Anderson, Hemphill. Alternates, Drs. W. R. Counts, Altamont Bracey, A. J. Villani, and E. O. Gates, Welch.

Ohio County (5)—Delegates, Drs. D. E. Greeneltch, E. E. Clovis, W. P. Sammons, R. C. Bond, and M. B. Williams, of Wheeling.

Parkersburg Academy (4)—Delegates, Drs. F. L. Blair, C. L. Goodhand, and W. R. Yeager, Parkersburg. Alternates, Drs. A. C. Woofter and Richard Hamilton, Parkersburg.

Potomac Valley (2)—Delegates, Drs. Thomas Bess, Keyser; and P. R. Wilson, Piedmont. Alternates, Drs. R. W. Love and O. V. Brooks, Moorefield.

Preston County (2)—Delegates, Drs. J. C. Arnett, Rowlesburg; and John F. Lehman, Kingwood. Alternates, Drs. David Salkin, Hopemont; and W. Parke Johnson, Arthurdale.

Raleigh County (4)—Delegates, Drs. James Coram, Clark Kessel, R. E. Newman, and L. G. Houser, Beckley. Alternates, Drs. R. G. Broaddus, T. U. Vermillion, S. A. Ford, and Doff D. Daniel, Beckley.

Summers County (1)—Delegate, Dr. D. W. Ritter, Hinton, and Dr. C. L. Howard, Hinton. Alternate, Dr. F. L. McNeer, Hinton.

Taylor County (1)—Delegate, Dr. Paul P. Warden, Grafton.

Wetzel County (1)—Delegate, Dr. Allen M. Dyer, Jr., Pine Grove. Alternate, Dr. E. C. Blum, New Martinsville.

Wyoming County (2)—Delegate, Dr. J. F. Biggart, Mullens.

BREAKFAST, LUNCHEON AND DINNER MEETINGS

(Prichard Hotel)

Monday, May 13

12:15—Section on Pediatrics. Robert Chobot, M. D., New York, guest speaker. (A. A. Shawkey, M. D., in charge.)

12:15—Orthopedic Luncheon. (Randolph L. Anderson, M. D., in charge.)

12:15—Medical Veterans. R. Glen Spurling, M. D., Louisville, Ky., George F. Lull, M. D., Chicago, and W. M. Sheppe, M. D., Wheeling, guest speakers. (Bert Bradford, Jr., M. D., in charge.)

Tuesday, May 14

8:30 A. M.—Medical College of Virginia Alumni Breakfast. (B. S. Brake, M. D., in charge.)

12:15—West Virginia Heart Association, Section on Internal Medicine, and American College of Physicians. Major Victor Kugel, M. C., Ashford General Hospital, and A. C. Corcoran, M. D., Cleveland, Ohio, guest speakers. (Frank J. Holroyd, M. D., Wm. C. Stewart, M. D., and Walter E. Vest, M. D., in charge.)

12:15—Section on Eye, Ear, Nose and Throat. Chevalier L. Jackson, M. D., Philadelphia, Pa., guest speaker. (Verne L. Lance, M. D., in charge.)

6:00 P. M.—Rehabilitation Dinner. Donald A. Covalt, M. D., Leonard G. Rowntree, M. D., and H. D. Shapiro, M. D., Washington, D. C., honor guests. (Benjamin I. Golden, M. D., in charge.)

Wednesday, May 15

12:15—West Virginia Obstetrical and Gynecological Society. Thaddeus L. Montgomery, M. D., Philadelphia, Pa., guest speaker. (G. A. Ratcliff, M. D., in charge.)

12:15—Section on Surgery. Ralph Adams, M. D., Boston, Mass., guest speaker. (Guy H. Michael, M. D., in charge.)

SCIENTIFIC EXHIBITS

Scientific Exhibits will be set up in the Bridge Room, just off the mezzanine at the Hotel Prichard. The exhibits will be arranged under the supervision of the Committee on Scientific Exhibit, composed of Dr. Hu Myers, Philippi, Chairman, and Drs. Chauncey B. Wright, Huntington, and C. C. Fenton, Morgantown. The following is a list of the exhibits:

1. WEST VIRGINIA UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF PHYSIOLOGY "The Effect of Various Agents on the Motility of the Stomach and Small Intestine in Man and Animal." The effect of certain agents (glucose, choral, bromural) on the motility of the stomach of man will be shown graphically. The effect of intravenous glucose on the motility of the small intestine of the dog will also be shown graphically.

2. TUMOR CLINIC, ST. MARY'S HOSPITAL, HUNTINGTON—Mounted pathologic specimens, kodachrome transparencies, placards, etc., demonstrating the work of the Tumor Clinic.

3. THE WEST VIRGINIA STATE NUTRITION COMMITTEE — An exhibit emphasizing the "basic seven" groups of foods with pamphlets on the normal diet of children and the nutritional survey conducted by the State Nutrition Committee with school children in three counties as subjects.

4. K. G. KHOROZIAN, M.D., PINEVILLE, W. VA.—"Microkaryocytes and Some of Their Functions." Exhibit demonstrating the microkaryocytic structure of cells (blood, tissue, and neoplastic cells); functions of microkaryocytes as disseminators of arsenic, bismuth, iron, sulfathiazole, penicillin, and their function as antibodies.

5. NATIONAL FOUNDATION FOR INFANTILE PARALYSIS—"The National Foundation at Work." Charts, graphs, and descriptive literature.

6. A. P. HUDGINS, M.D. — "Office Method for Hysterosalpingography." A new self-retained, screw-type cannula with valve, which permits the injection of the opaque media in the physician's office. The patient walks to the x-ray office, has one thirty-minute flat plate, and returns for removal of cannula. The cannula may be retained for twenty-four hours for therapeutic effect.

7. PAUL H. HARMON, M.D.—"Arthroplastic Operations on Hip and Knee in Chronic Arthritis, Technique and End Results." Kodachrome and other transparencies illustrating the appearance of hips and knees suitable for arthroplastic operations; also giving end results.

8. STAFF OF MORRIS MEMORIAL HOSPITAL FOR CRIPPLED CHILDREN—"Services for Crippled Children at the Morris Memorial Hospital for Crippled Children." Kodachrome transparencies permitting views of the hospital and the services and activities within it.

9. WALTER G. J. PUTSCHAR, M.D. — "Liver Pathology." Exhibit of gross specimens illustrating the various types of liver pathology.

10. DIVISION OF CANCER CONTROL, WEST VIRGINIA STATE HEALTH DEPARTMENT—"The General Practitioner and the Cancer Patient." An exhibit demonstrating "Cancer Detection Aids for the Office."

11. AMERICAN MEDICAL ASSOCIATION — "Malaria."

12. AMERICAN MEDICAL ASSOCIATION — "Food Poisoning."

13. BUREAU OF DENTAL HYGIENE, WEST VIRGINIA STATE HEALTH DEPARTMENT—"The History of Dental Health." Twelve pictures depicting the progress of dental health through the ages.

14. DIVISION OF VITAL STATISTICS, WEST VIRGINIA STATE HEALTH DEPARTMENT—"Inadequacy of Birth Registration in West Virginia." Brings out the fact that 14 out of every 100 babies born in West Virginia are not registered; shows average number of babies not registered, by counties per 100 births, and what may be wrong with the 86 birth certificates out of every 100 filed.

TECHNICAL EXHIBITS

Space	*Exhibitor*
29	A. S. Aloe Company
18	The Borden Company
6	Burroughs Wellcome & Company
9	Ciba Pharmaceutical Products, Inc.
32	Coca-Cola Company
4	F. A. Davis Company
27	Feick Brothers
26	H. G. Fischer & Company
3	General Electric X-Ray Corporation
30	Kloman Instrument Company
12	Lanteen Medical Laboratories, Inc.
14	Lederle Laboratories
20	Liebel-Flarsheim Company
19	Eli Lilly and Company
28	J. B. Lippincott Company
10	Mead Johnson and Company
1	Medical Arts Supply Company
24	McLain Surgical Supply Company
25	National Drug Company
22	Nestle's Milk Products, Inc.
8	Ortho Pharmaceutical Corporation
16	Parke, Davis and Company
17	Philip Morris & Co., Ltd., Inc.
5	Powers and Anderson
15	W. B. Saunders Company
11	Sharpe & Dohme
23	U. S. Vitamin Corporation
2	Van Pelt & Brown
31	Westinghouse X-Ray Company, Inc.
21	White Laboratories, Inc.
13	Max Wocher & Son Co.
7	X-Ray Supply Company of West Virginia

DESCRIPTION OF TECHNICAL EXHIBITS

Booths for technical exhibits will be erected on the mezzanine and in rooms adjoining the mezzanine on the Ninth Street side of the Prichard Hotel. The following is a list of the exhibitors with brief description of each exhibit:

* * *

A. S. ALOE COMPANY

Booth 29

The A. S. Aloe Company, in Booth 29, is exhibiting a small cross-section of its complete line of surgical, physiotherapy and laboratory equipment. Our representative, Mr. R. F. Hightower, is in charge of the booth.

* * *

THE BORDEN COMPANY

Booth 18

Spend a few minutes with Borden at Booth No. 18. Refresh your memory on our prescription products. Meet the new concentrated Biolac; New Improved Dryco with its formula flexibility; Mull-Soy for your milk allergic patients; powdered whole milk Klim; the improved milk sugar, Beta Lactose; and the Merrell-Soule Protein and Lactic Acid Milk. Borden men are pleasant men!

* * *

BURROUGHS WELLCOME & CO.

Booth 6

Burroughs Wellcome & Co. (U.S.A.) Inc., New York, cordially invite physicians to their exhibit of a representative group of fine pharmaceuticals and chemicals. Of particular interest are GLOBIN INSULIN, a new advance in diabetic control: DIGOXIN, a pure, stable, cystalline glycoside of Digitalis lanata, combining constant, uniform potency with rapidity of action; "DEXIN" High Dextrin Carbohydrate, the milk modifier in which the nonfermentable portion predominates; and "LUBAFEX" Brand Surgical Lubricant, our newest preparation.

* * *

CIBA PHARMACEUTICAL PRODUCTS, INC.

Booth 9

Ciba invites you to visit its display at Booth No. 9. Among the products displayed will be PRIVINE, a nasal vasoconstrictor; METANDREN Linguets, Ciba's unique form of androgenic therapy for absorption through the membranes of the mouth; NUPERCAINE, a spinal anesthetic; VIOFORM, a non-irritating antiseptic, and many others. Samples and literature will be available and representatives will be in attendance to answer your questions.

THE COCA-COLA COMPANY

Booth 32

Coca-Cola will be served through the joint courtesy of the Huntington Coca-Cola Bottling Company and the Coca-Cola Company.

* * *

F. A. DAVIS COMPANY

Booth 4

When you visit Booth 4 to see the F. A. Davis Company display, you will want to examine these new books: Alpers Clinical Neurology, Albee Surgery of the Spinal Column, McCrea Clinical Cystoscopy, Thorek The Face in Health and Disease, Rotweiler Nursing in Pictures, and McCrea Clinical Urology. Also, Pillmore Clinical Radiology, with 52 eminent contributors, will be shown in part.

Among the new editions will be The Cyclopedia of Medicine, Surgery and Specialties; Reimann Treatment in General Medicine; Stroub Cardiovascular Disease; Litchfield-Dembo Pediatric Therapy; Loewenberg Medical Diagnosis; Judovich and Bates Segmental Neuralgia; Smith Proctology; and Murphy Diagnosis and Treatment of Acute Medical Disorders.

* * *

FEICK BROTHERS COMPANY

Booth 27

We will have on exhibit a varied line of supplies, including furniture, physiotherapy equipment, surgical instruments, laboratory supplies, etc.

* * *

H. G. FISCHER & COMPANY

Booth 26

Due to present conditions we are showing one item only—a powerful mobile x-ray unit developing 30 M.A. and 96 K.V.K. This may be used on 110 or 220 volt line. Electric timer and electric release for a Bucky. Oil immersed tube, of course. Our new radio short wave is available complying with all requirements of F.C.C.

* * *

GENERAL ELECTRIC X-RAY CORPORATION

Booth 3

General Electric X-Ray Corporation will have members of the Cincinnati and Pittsburgh offices to greet their many friends and customers. Movies of the application of Stader Splints will be shown.

KLOMAN INSTRUMENT COMPANY, INC.

Booth 30

Our exhibit will consist of Surgical Instruments and Diagnostic and Physiotherapy equipment.

* * *

LANTEEN MEDICAL LABORATORIES, INC.

Booth 12

Our exhibit will include the improved Lanteen Flat Spring Diaphragm Set, Lanteen Douche Powder, Hexestrol (Lanteen), Hexypheem (Hexestrol Lanteen with Phenobarbital), as well as our entire line of Vi-teens vitamin products, including our new Vi-teens Homogenized vitamins, a multiple vitamin emulsion dietary supplement for infant and child feeding.

* * *

LEDERLE LABORATORIES, INC.

Booth 14

We will present box type exhibits, which will display three or four different Pharmaceuticals and Biologics, namely, Pencillin Products, Sulfonamides, Rhinazine Poison Ivy Extract, Influenza Virus Vaccine, Folvite (Folic Acid), Immune Globulin, Pertussis Antigen, Rocky Mountain Spotted Fever and Anti-Rh Serum.

* * *

THE LIEBEL-FLARSHEIM COMPANY

Booth 20

The Liebel-Flarsheim Company considers it a privilege to exhibit models of their BOVIE Electrosurgical Units and Short Wave Diathermies at the West Virginia State Medical Association's 1946 meeting. Our West Virginia representative, Mr. Grover C. Barkdoll, cordially invites you to visit the Liebel-Flarsheim Booth No. 20 for examination and demonstration of their latest electrosurgical and diathermy apparatus.

* * *

ELI LILLY & COMPANY

Booth 19

The Lilly exhibit will feature an interesting demonstration in miniature on penicillin culture. Many Lilly products will be on display, and attending Lilly medical service representatives will be present to assist visiting physicians in every possible way.

* * *

J. B. LIPPINCOTT COMPANY

Booth 28

You are cordially invited to visit the exhibit of LIPPINCOTT SELECTED PROFESSIONAL BOOKS, where many interesting new books and new editions will be available for your inspection. Books of particular interest include: Bancroft-Murray's new two-volume work on SURGICAL TREATMENT OF THE MOTOR SKELETAL SYSTEM; Bancroft-Pilcher's SURGICAL TREATMENT OF THE NERVOUS SYSTEM; Berens and Zuckerman, DIAGNOSTIC EXAMINATION OF THE EYE; Pitkin's CONDUCTION ANESTHESIA; Foot's PATHOLOGY IN SURGERY; Groff and Houtz, DIAGNOSIS AND TREATMENT OF PERIPHERAL NERVES; Stern and Rosenthal, DIABETIC CARE IN PICTURES; and Burket's ORAL MEDICINE.

* * *

MEAD JOHNSON & COMPANY

Booth 10

"Servamus Fidem" means We are Keeping the Faith. Almost every physician thinks of Mead Johnson & Company as the maker of Dextri-Maltose, Pablum, Oleum Percomorphum, and other infant diet materials—including the new precooked oatmeal cereal, Pabena. But not all physicians are aware of the many helpful services this progressive Company offers physicians. A visit to Booth No. 10 will be time well spent.

* * *

MEDICAL ARTS SUPPLY COMPANY

Booth 1

Equipment for the physician's entire office, clinic or laboratory—X-Rays, Diathermies, Metabolors, Sterilizers, Pumps, Diagnostic Instruments, and Furniture. Also featuring American made and Stille stainless steel surgical instruments.

* * *

McCLAIN SURGICAL SUPPLY COMPANY

Booth 24

Surgical supplies currently available will be shown, together with a general line of supplies and drug specialties.

* * *

THE NATIONAL DRUG COMPANY

Booth 25

In addition to National's time-tested, Council Accepted biologicals, newest developments in both the biological and pharmaceutical fields will be presented.

Of specific interest will be our Amino Acids and Allantomide products, plus National's series of multiple antigens for simultaneous immunization. Mr. A. B. Ginden and trained representatives will be available for discussion.

* * *

NESTLE'S MILK PRODUCTS, INC.

Booth 22

Nestle's Milk Products, Inc.—the first Company to offer the medical profession a new improved evaporated milk containing 400 U.S.P. units of pure vitamin D per pint—now presents two new complimentary services to the busy physician: Nestle's "Nutrition Briefs," a quarterly publication containing abstracts of papers on nutrition appearing in the current medical literature both here and abroad, and Nestle's "Your Baby's Record," a valuable record for baby's first four years of life.

* * *

ORTHO PHARMACEUTICAL CORPORATION

Booth 8

Ortho Pharmaceutical Corporation will display their well-known line of gynecic pharmaceuticals, including Triple Sulfa Vaginal Cream—specifically designed for bacterial vaginitis.

PARKE, DAVIS & COMPANY

Booth 16

Representatives of PARKE, DAVIS & COMPANY, well informed concerning progress in Pharmaceutical Research, and desirous of presenting new advancements to you, will be in attendance at our Technical Exhibit to discuss the nature and employment of new and present products. Displayed will be such outstanding products as THEELIN, MAPHARSEN, and ADRENALIN PREPARATIONS. The latest type of BIOLOGICALS will be on display. Likewise, PENICILLIN and other therapeutic agents of antibiotic, biological, and chemotherapeutic interest will be shown. We sincerely invite your visit to this exhibit.

* * *

PHILIP MORRIS & CO., LTD., INC.

Booth 17

Philip Morris & Company will demonstrate the method by which it was found that Philip Morris Cigarettes, in which diethylene glycol is used as the hygroscopic agent, are less irritating than other cigarettes. Their representative will be happy to discuss researches on this subject and problems on the physiological effects of smoking.

* * *

POWERS & ANDERSON, INC.

Booth 5

Powers & Anderson will exhibit various surgical instruments and supplies which are now available for the physician's office. Included will be sample lines of the famous Stille instruments, and other new and improved items. Mr. E. G. Johnson, West Virginia representative, and Robert E. Anderson, Jr., will be in charge of the exhibit.

* * *

W. B. SAUNDERS COMPANY

Booth 15

This publishing house will exhibit its complete line of books, including Bockus' 3-volume work on "Gastroenterology", new (5th) edition of Beckman's "Treatment", new (3rd) edition of Andrews' "Disease of the Skin", new (5th) edition of Curtis' "Gynecology", Jackson & Jackson's "Diseases of the Nose, Throat and Ear", new (4th) edition of Mitchell & Nelson's "Pediatrics", Herrell's "Penicillin and Streptomycin", Wohl's "Dietotherapy", Mackie's "Manual of Tropical Medicine", new (3rd) edition of Levine's "Clinical Heart Disease", Conant & Smith's "Manual of Mycology", new (3rd) edition of Stokes, Beerman & Ingraham's "Syphilology", Orr's "Operation of General Surgery", Cantarow & Trumper's "Clinical Biochemistry", Allen, Barker & Hines' "Peripheral Vascular Diseases", new (2nd) edition of Mason's "Preoperative and Postoperative Care", new (2nd) edition of Graybiel & White's "Electrocardiography", and many others.

* * *

SHARP & DOHME

Booth 11

Sharp & Dohme will have their display at Booth 11, featuring Tyrothricin Concentrate for Human Use, "Lyovac" Normal Human Plasma, "Sulfathalidine", "Sulfasuxidine", and "Caligesic" Ointment, a greaseless anesthetic and analgesic ointment which possesses definite antipruritic action. A cordial welcome awaits all visitors.

U. S. VITAMIN CORPORATION

Booth 23

Full color illustrated brochure "Diagnosing Vitamin Deficiencies" together with professional samples and literature on VI-SYNERAL, POLY-B, VI-LITRON, HYPERVITAM, LIPO-HEPLEX, DALSOL, DESIVER, and others.

* * *

VANPELT & BROWN, INC.

Booth 2

You are cordially invited to visit the VanPelt & Brown booth where V&B specialities will be displayed, including BARBIDONNA, THEOBARB, BELLASPRO, GLUCO FERRUM, VIAZOLE AND VIRGITALIS. Messrs. George J. Hulcher, W. J. Hargis, and R. G. H. Yeatman will be in charge of the exhibit.

* * *

WESTINGHOUSE X-RAY COMPANY, INC.

Booth 31

A complete modern shockproof diagnostic x-ray equipment suitable for installation either in hospital, medical clinic, or private office, including tilt fluroscopic bucky table and 100 MA generator.

Newly designed types of x-ray film viewing equipment.

Translite illuminated slides showing representative Westinghouse equipment and installations in this section.

Descriptive literature covering new developments in the x-ray field perfected in some cases because of, and during, the war.

* * *

WHITE LABORATORIES, INC.

Booth 21

White Laboratories, Inc., at Booth 21 present information regarding White's Sulfathiazole Gum — expressly formulated for topical chemotherapy in oropharyngeal infections; White's Otomide—a more effective means of topical chemotherapy in ear infections — and a NEW specialty, White's Mol-Iron Tablets, a new and definite advance in the treatment of iron deficiency anemias.

White's ethically promoted vitamin specialties are also featured. You will find a very cordial welcome by White's Medical Service Representatives in charge of the exhibit.

* * *

THE MAX WOCHER & SON CO.

Booth 13

Visitors to the exhibit of the Max Wocher & Son Co. (Wocher's) will have an opportunity to view the new line of treatment furniture now being made in quantity by this company. Wocher's will display, in addition, all the new models of surgical instruments — both general surgical and specialists'.

Leslie E. Boehme, known to West Virginians for 25 years as "the Wocher Man", will be in charge of the display. Mr. Boehme invites you to make the Wocher booth your headquarters.

* * *

THE X-RAY SUPPLY COMPANY OF W. VA.

Booth 7

We will display Keleket 200 MA Multicron Transformer and Control, and Keleket Fluorescent Illuminators.

CONVENTION PROGRAM

22nd Annual Meeting

Woman's Auxiliary to the

West Virginia State Medical Association

Hotel Governor Cabell, Huntington

May 13-15, 1946

Hostess

WOMAN'S AUXILIARY TO THE
CABELL COUNTY MEDICAL SOCIETY

MONDAY AFTERNOON
May 13

2:00—Registration (Lobby).

4:00—Preconvention Board Meeting.

TUESDAY MORNING
May 14

10:00—Formal Opening of Convention.

Invocation—Rev. Rolla Kenaston, Pastor of Johnson Memorial Church, Huntington.

Salute to the Flag—Mrs. Herbert M. Beddow, Charleston.

Address of Welcome—Mrs. C. O. Reynolds, Huntington.

Response—Mrs. F. C. Chandler, Bridgeport.

Report of Convention Committee—Mrs. Harry E. Beard, Huntington.

Presentation of Cabell County Convention Chairman—Mrs. J. F. Barker, Huntington.

Registration Report—Mrs. J. R. Brown, Huntington.

Rules of Procedure—Mrs. H. V. Thomas, Clarksburg.

Roll Call.

Reports of Officers.

Reports of Standing Committees.

Reports of Special Committees.

Report of President's Meeting—Mrs. D. E. Greeneltch, Wheeling.

Announcements.

In Memoriam—Mrs. John W. Hash, Charleston.

Adjournment.

TUESDAY AFTERNOON

1:00—Luncheon, Ballroom, Hotel Governor Cabell. Cabell County Auxiliary, Hostess.

Address by Col. J. E. Ash, M. C., Director, Army Institute of Pathology, Washington, D. C.

Honor Guests: Dr. Andrew E. Amick, President, West Virginia State Medical Association; Drs. Hu C. Myers, Harry V. Thomas, John P. Helmick, Scott A. Ford, and U. G. McClure, members of the Advisory Board; Dr. J. H. Barker, President, Cabell County Medical Society; and Mr. Charles Lively, Executive Secretary, West Virginia State Medical Association.

3:00—Open House, Hotel Governor Cabell.

Cabell County Auxiliary, Hostess.

WEDNESDAY MORNING
May 15

9:30—Salute to the Flag—Mrs. H. M. Beddow.

Reading of the Minutes.

Presentation of Mrs. W. W. Potter, of Knoxville, President of the Woman's Auxiliary to the Southern Medical Society, and other honor guests.

Credentials and Registration.

Roll Call.

Roll Call of Delegates by Counties.

Treasurer's Report—Mrs. G. A. Ratcliff, Huntington.

Auditor's Report.

Report of Budget Committee.

Reports of County Presidents.

Reports of Credits and Awards—Mrs. Scott A. Ford, Beckley.

Announcements.

Election of Delegates to National Convention.

Report of Nominating Committee.

Election of Officers.

Installation of Officers—Mrs. W. W. Potter.

Presentation of Gavel to Mrs. Delmas E. Greeneltch—Mrs. Ulysses G. McClure.

President's Address—Mrs. Greeneltch.

Adjournment.

WEDNESDAY AFTERNOON

1:00—Luncheon, Ballroom, Hotel Governor Cabell.

Address by Mrs. W. W. Potter—"Jane Todd Crawford Memorial."

2:30—Post-convention Board Meeting—Mrs. Delmas E. Greeneltch, Presiding.

THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII JUNE, 1946 No. 6

UP TO NOW*

By ANDREW E. AMICK, M. D.,
President, West Virginia State Medical Association
Charleston, West Virginia

Chapter VI, Section I, of the By-Laws of the West Virginia State Medical Association imposes upon the President the duty, and extends to him the privilege of delivering an address at its Annual Meeting; a task that is a duty because our law imposes it, and a privilege because it gives to one about to make his final official appearance, the opportunity to communicate to his fellow members any thoughts which he may hold to be significant.

For months it has been my pleasant task to review the annual addresses of most of my predecessors. Such a study has convinced me that to refer to the accomplishments of the past would be but a repetition of what has already been said, and in far more gracious language than I possess. Therefore, I feel that it is imperative that the few remarks I make should be confined to situations right at hand.

First of all, it is my pleasure to thank the members of this Association for the signal honor they conferred on me in selecting me for the presidency. It is a real joy to tell you of my very deep appreciation of this confidence which perhaps I do not merit. I say this advisedly for I realize, far better than anyone else, how many more mistakes I would be making did I not have the able guidance of our most capable Executive Secretary, the Hon. Charles Lively.

Mr. Lively is efficiency personified. At the same time, he is so gentle and persuasive that he has made me know that every thought he had was right, before I had an opportunity to do much thinking myself, and thus saved me a tremendous amount of work! I believe he is the most thoughtful, thorough, and sincere man I have ever known, and also one of the most considerate and consecrated. His value to this Association can never be measured in dimes and dollars.

The Council of this Association is the most impersonal and the most effective body I have yet seen. The sincerity and frankness with which they discuss your affairs, the thoroughness with which they know what you are thinking about, and the interest they are taking in building up a purely friendly service organization of men with like interests, is one of the most delightful things I have had the opportunity of observing.

To Dr. Walter E. Vest, and the members of the Publication Board; E. J. Van Liere, W. E. Sheppe, G. G. Irwin, and R. H. Edwards, I say that the value of their services to each of us in our practice is absolutely incalculable, because of the way they select from a tremendous volume of scientific literature those things which are of the most help to us, ture those things which are of the most help to us. This is a service for which every West Virginia physician is grateful.

Through Mrs. Ulysses G. McClure, as President of the Auxiliary, I want to express our appreciation to that body for the very delightful way they

*Annual Address of President, West Virginia State Medical Association, 79th Annual Meeting, Huuntington, West Virginia, May 13, 1946.

have carried on the work which has been assigned to them from time to time. I do not think they do as well as they could do, but they look so lovely while doing it that we forget any deficiencies they might have shown.

The effectiveness of this Association may be said to be determined largely by the men who compose its committees. This large group of men has labored diligently for the general good of the Association. In them we have before us always a standard of merit for the appraisement of our value to the people whom we serve.

What do we need most in this present turbulent, uncertain situation? Preëminently, an appreciation of its seriousness. The situation calls for patience and good will, but not for vacillation. We have allowed our moral leadership to lapse.

UP TO NOW we have been disinclined to be realistic, or quite frank in the admission of our failures, more especially in calling attention to those things that made the failures. Our long standing lethargic reaction to the distress of our fellow man in his problem of securing good medical care for himself and his family convinces me that we have been facing down the road to hell, lured by the mirage of personal prosperity and security.

An honest confession, I am told, is usually helpful. In other words, I am frank to say in passing that I have one big regret, namely, that I have given so little to the problems of our Association. Medicine has been good to me, as I am convinced she has been to each of you. What of our reciprocity? In my blissful state of intellectual ignorance, I have the effrontery to point out to you some of the reasons why I think we are missing much well earned immortality. This, I hold, is because UP TO NOW we are doing a job just half well.

In the main, our attitude over the last decade has been: "We can coast along and win." True enough, we have been "coasting," but you coast downhill. All of us know or should know that we cannot in this manner maintain the "status quo"—retain our liberty and the right to express our honest views, or fulfill our desire to see the continuation of "free" medicine in West Virginia and the nation.

UP TO NOW, we have gone on the assumption that we are superior to other laboring groups. The fact is that the physician by and large differs little from the average human being.

UP TO NOW, we have wasted much time in telling the world how enlightened we are. We point to the progress of our scientific medicine in the last two decades as if this progress implied that the people are not worthy of a voice in the determination of the type of medical care they desire. Since scientific progress doubtless has been just as great in other fields of endeavor, there is no need for our progress to center in our heads.

UP TO NOW, we have ignored the social implications in our medical progress, its needs and possibilities, its opportunities and dangers.

The endeavors of an individual, an organization, or a nation have a central idea. If and when this idea becomes exhausted, a crisis results. Here and now we are face to face with such a crisis. For a few decades we have gone on the assumption that the patient exists for the doctor, rather than that the doctor exists for the patient. An organization must be judged by the point from which it starts, the goal which it sets, and the progress which it makes. A self-righteous attitude on our part ignores those realities and creates a gulf of misunderstanding between us and other organizations, between us and the people whom we are supposed to serve. We need not waste more time in pointing to the achievements we have attained in medicine in the last thirty years as if they signified that the people need have no voice in determining the type of medical care they need today. The point at issue is how to bring the social applications of modern medicine in line with scientific progress in eradicating and preventing disease.

UP TO NOW, our attitude toward preventive medicine and its procedures has been negligible and indifferent.

I have a profound faith in the youth of our Association, particularly that large group of noble men returned to us from the Armed Services, who, with the tremendous experience of war behind them, know full well that the "status quo" together with the spirit of "isolation" must be abolished forever if we are to keep even fragments of "free" medicine in West Virginia and the nation.

Four hundred twenty of our doctors have contributed their full share of the best medical care that some twelve million men and women have ever known. For the last four years these men and women have not been impressed by "free choice of doctor" and "doctor-patient relationship." They expected and received good medical care. Our medical officers have carried good medical care to them. Their location was of no concern. Good medical care for four years was on the march.

These twelve million men and women expect continued good medical care.

Our role in this drama is to arrange ourselves into groups and to associate such groups with voluntary prepaid medical and hospital insurance plans. County medical societies must assume such responsibility. A "Brotherhood of Doctors" must become the watchword. Medical or health centers and rural clinics must do the routine treatment and preventive work. Cases requiring more specialized care must be sent to general hospitals.

Such a program means that counties, or groups of counties, must assume responsibility for the building and equipping of such centers and clinics, as well as for the fee-for-service rendered their medically indigent.

Today an informed public is debating the question: Which will give better results, our individualistic concept of medical practice that permits the physician complete freedom to act as he pleases without ever taking the welfare of Society as a whole into consideration, or a carefully planned, organized medical service directed not for the individual gain of a few but with the needs of the entire population in mind? The Supreme Court of the United States has held: "There is sufficient historical evidence of professional inadequacy to justify occasional popular protests. The better educated laity of today questions the adequacy of present day medicine."

I pose the question here and now: Are we inadequate in quality or quantity? Are we to continue as a part of the problem, or as a part of the solution of the problem?

Every doctor should be in limited practice, that is, he should limit has practice to just what he is qualified to do.

The Army maintained a consultant system in an attempt to make sure that its medical officers did the work they were qualified to do. Today in West Virginia and the rest of America most doctors do the work they have the intestinal fortitude to undertake. Commendable though their courage may be, their zeal is often regrettable in its results. It is my belief that the same safeguards should be applied to doctors in their care of civilian patients as were provided for the army medical officers in their care of military personnel.

For a quarter of a century we have been told that our West Virginia Medical practice Act was the model of the nation. Yet my medical license permits me to practice medicine and surgery without qualification other than to have graduated from a class A medical school!

Our soldiers and sailors were protected from the "incompetent" doctor. In recent weeks General Omar Bradley has announced that the "thoroughly" incompetent doctor, dentist, and nurse, will be discharged from the Services. Quacks are not allowed to practice medicine in the Army or Navy. Not a single one of these pseudodoctors, faith healers or manipulators was commissioned in the Medical Corps of the Army or Navy in World War II, yet they are permitted to practice and prey on a gullible public.

Our long outmoded and antiquated Medical Practice Act should be rewritten and brought up to date. Every applicant for a license to practice medicine should be required to state just what his training qualifies him to do, and be so licensed. To be licensed to practice both medicine and surgery imposes on one man more responsibility than he should be required to assume, in justice to his health as well as the health of his patients. Clearly stipulated intervals for post-graduate or refresher training periods should also be required. This is necessary because medicine is the least static of all sciences. Surely, all of us will agree that what was theory yesterday is fact today, and tomorrow will be history.

Our hallowed Code of Professional Ethics should be more carefully interpreted and administered lest it shield the unworthy. We should admit to its noble provisions only those who in sincerity and competence minister to the public. We need to hold their confidence by means more strictly ethical than secret consultations and Latin placebos. They witness our testimony given in court proceedings when a fellow physician is involved and are not impressed by its sincerity. Beyond dispute, we sorely need to find a more excellent way to maintain confidence in the honor of our profession.

We are face to face with the greatest social crisis since the fall of the Roman Empire. Ours may be the tragic privilege but it is also the magnificent opportunity, the opportunity to lead and direct the forces which might otherwise mean the curtailment of medical progress in this state and nation.

Every one of us should subscribe to the belief that there is and must be some power higher than mere man, state, government, or groups of nations. Without such a firm belief all theories of government or types of medical practice must and will fail. Civilization looks to us as members of a learned and honored profession to play a leading role in the preservation of such a belief, and this is a subject on which we should not, and must not, and with God's help will not be neutral.

Over the last decade our most outstanding characteristic has been the immense increase in the printing and talking we have permitted, or to which we have contributed on the subject of medical care. With the passing years we have become more prolific. In wordiness, effusiveness, and confusion of public and private discussions we have not put service above self.

Drifting is merely a cowardly mode of choice. The time is come when we must "lay it on the line." The battle hour has struck! I repeat: Never in the whole history of America has there been such an opportunity for any group of men and women as is ours tonight! Then to your tents, O Israel!

GOLDEN AGE OF CHILD HEALTH

The remarkable gains achieved in controlling death and disease among children constitutes one of the brightest chapters in the recent history of American medicine and public health administration. The gains also reflect the economic and social advances which have greatly raised our standard of living. What has been accomplished in reducing mortality among youngsters in the United States and Canada is well illustrated by the experience among children insured in the Industrial Department of the Metropolitan Life Insurance Company. The death rate among these children at ages 1 to 14 dropped sharply and almost continuously in the past 35 years. The fact that this great improvement has been accomplished in a period during which there were two world wars and a major economic depression, gives added significance to the achievement.

For a number of diseases the improvement in mortality has been truly amazing. For example, the death rate from the principal communicable diseases of childhood—measles, scarlet fever, whooping cough, and diphtheria—has declined well over 90 percent among white children in the period under review. It is a striking fact that at ages 1 to 14 years the death rate from all causes combined now is considerably less than the mortality from the four communicable diseases only 3½ decades ago. The decrease of 97 percent for diphtheria is an outstanding example of what can be accomplished in conserving life when knowledge pertaining to prevention and treatment of disease is available and fully utilized. There are an appreciable number of large communities in the United States that have not lost a single child by diphtheria for a series of years.

Another signal victory for the public health movement has been the decline of 95 percent in the death rate from diarrhea and enteritis. For every child that now dies from this cause were 20 a little more than a generation ago. The principal factors in achieving this result have been the pasteurization of milk, the greater purity of drinking water and foods, modern refrigeration, and the widespread education of mothers regarding the care and feeding of young children.

PRIMARY OMENTAL TORSION--- CLINICAL ASPECTS

(WITH CASE REPORT)

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The greater omentum, frequently involved in various intra-abdominal pathological conditions, is the occasional site of acute primary disease. The relative infrequency of such occurrence, and the tendency to simulate other more common acute intra-abdominal conditions, usually result in an erroneous preoperative diagnosis (1, 2, 3).

The greater omentum is a large apron of fat, containing blood vessels, lymphatics, and nerves. The acute disease processes of this structure are those principally related to vascular disturbances, secondary to either torsion or intravascular thrombosis or embolism. The pathological findings consist of varying degrees of congestion, hemorrhagic extravasation, thrombosis, infarction, and gangrene, depending to a great extent on the duration of the process.

A case report of omental torsion is herewith presented for a threefold purpose: (1) to add an additional case record to the increasing number of case reports of this "relatively rare" condition, (2) to present the clinical features of the disease which make for erroneous diagnosis, and (3) to remind the surgeon that this condition may exist as a pathological entity in itself, in the absence of other intra-abdominal disease.

CASE REPORT

J. E., a 68 year old white male, was admitted to the Davis Memorial Hospital August 21, 1945, complaining of lower abdominal pain of three days' duration. The patient was well until the evening of August 18 1945, when, directly after dinner, he experienced epigastric colicky pains, which were followed shortly by sharp pains in the right lower quadrant of the abdomen. There was no nausea, vomiting, diarrhea, or constipation. The pains persisted in the right lower quadrant; these were non-radiating, and were not sufficiently severe to warrant bed rest. That night the patient slept well. The following morning he awoke with pain in the right lower quadrant; this was sharp in character, and constant. He was ambulant throughout the day, going about his regular activities. When he was at rest, the pain subsided; however, when he moved, it recurred. He continued to eat his regular meals.

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The pain persisted for an additional two days, at the end of which time his physician advised hospitalization. There were no urinary disturbances, no melena or gross bleeding, and no recent weight loss.

The past history revealed that the patient had had parkinsonism since 1938. In 1940, a diagnosis of heart disease" had been made. In 1943, the patient had been hospitalized for "heart failure," and since that time had been receiving digitalis and theocalcin. He usually slept with three pillows under his head. Electrocardiographic studies in 1943 showed evidence of myocardial damage, which was thought to be secondary to arteriosclerosis.

Physical examination showed the patient to be about 68 years old, well developed, and with characteristic parkinsonian movements of the hands. He complained of pain in the right lower quadrant of the abdomen. The temperature was 98.6 F., pulse 84, and respiration 20. Blood pressure was 160 systolic and 106 diastolic. The pupil of the right eye was widely dilated and reacted minimally to light (old injury, 1939); the left pupil was apparently normal and reacted normally. The heart was slightly enlarged to the left. There was a loud, blowing systolic murmur at the apex, and a blowing diastolic murmur over the aortic area. The abdomen was slightly distended, with some bulging present in the right lower quadrant. Pressure and releas eof pressure in the left lower quadrant produced pain in the right lower quadrant. Pressure and release of bound tenderness, and rigidity were present in the right lower quadrant, with a questionable mass at this point. There was no costovertebral angle tenderness.

Urinalysis: Specific gravity 1.034; pH 7; sugar, albumen and microscopic examinations were negative.

Blood: Hemoglobin 104 per cent; erythrocytes 5.52 million; leukocytes 14,600. Differential count: Polymorphonuclear 78 per cent; lymphocytes 20 per cent; mononuclear 2 per cent. The sedimentation rate was 25 mm. in 60 minutes. The blood urea nitrogen was 16.2 mg. per 100 cc. Hinton and Kolmer blood serology tests were negative.

The admission diagnosis was (1) possible appendicitis, (2) possible neoplasm of the ascending colon, (3) hypertensive arteriosclerotic heart disease, and (4) parkinsonism.

TREATMENT AND COURSE

The patient was put to bed, given a regular diet, and some sedation. He ate his meals without difficulty. However, he continued to have pain and localized signs in the right lower quadrant, though he remained afebrile. On August 23rd, the second day after admission, because of persistence of pain and exquisite tenderness in the right lower quadrant, a laparotomy was performed, under 300 mg. neocaine spinal anesthesia.

Operative findings: It was interesting to note that after patient had been given the spinal anesthetic and placed into the supine position (with slight Trendelenburg), a mass could be palpated slightly above the region of McBurney's point, at about the level of the umbilicus.

A right midrectus, muscle splitting incision was made. The appendix was normal. The gallbladder was not visualized; however, no stones were felt. The right lower portion of the omentum was the site of a moderately large tumor mass 10 x 6 x 2 cm.), attached to the remainder of the omentum by a narrow pedicle which appeared to be twisted on its axis. This mass was firm and hemorrhagic, and was found lying in the right lateral gutter, at the level of the umbilicus. The mass was clamped through the narrow pedicle and excised. Hemostasis was secured by suture ligature. A routine appendectomy was performed.

Pathological findings: On section, the mass presented a hemorrhagic appearance, and in color and consistency bore a close resemblance to a sectioned spleen.

I

II

III

On microscopic section, the mass showed the typical structure of omentum, with vascular congestion and hemorrhagic extravasation. There was moderate polymorphonuclear infiltration around the hemorrhagic areas.

The postoperative course was uneventful, and the patient was discharged on the twelfth postoperative day.

Final diagnosis:

1. Torsion of the greater oventum.
2. Hypertensive arteriosclerotic heart disease.
3. Parkinsonism.

The accompanying illustrations (I, II, III) may serve to show the mechanism of the torsion and the vascular constriction. Although various theories have been expounded to explain why this process takes place, none has been sufficiently conclusive to warrant acceptance.

DISCUSSION

It is interesting to note that the error in preoperative diagnosis in this case is one shared by others. Anton (1), in a series of three cases of omental torsion, reported two cases erroneously diagnosed as acute appendicitis and a third case diagnosed as acute cholecystitis. Pines (2) reported six cases of omental infarction, all of which were diagnosed as acute appendicitis.

A review of the clinical aspects of this condition makes it rather obvious why such an error may be made. The onset of the illness is usually abrupt. There is colicky pain in the epigastric or umbilical region or in the right lower quadrant. This is usually followed by vomiting and then localization of sharp pain in the right lower quadrant. The sequence of events closely simulates the Murphy syndrome of acute appendicitis. However, a careful review of certain aspects of this disease reveals several interesting points which, if given adequate consideration, might make one a bit hesitant about making too rapid a diagnosis of appendicitis or acute cholecystitis. In spite of the history of vomiting and abdominal pain, there is little or no anorexia. In the case reported, the patient felt hungry and ate all of his meals, although examination revealed exquisite localized tenderness in the right lower quadrant. Bowel function usually remains unchanged.

The exquisite tenderness and localized rebound tenderness, as well as the skin hyperesthesia, are far more prominent than those usually seen in acute appendicitis. In addition, these are far out of proportion to the associated apparent well-being of the patient. The contact of the involved omentum with the anterior parietal peritoneum makes these signs more pronounced. The mobility of the omentum allows for simulation of disease in various parts of the abdomen. In each of his cases, Pines (2) found the diseased area of the omentum directly beneath the incision in the right lower quadrant. The finding of a mobile tumor mass early in the disease might be of value in differentiating this condition from appendicitis. If the patient is first seen about four to six days after the acute onset, the possibility of appendiceal abscess may further complicate the diagnosis. It is interesting to note that in the case presented, a diagnosis of possible neoplasm of the colon was considered, in view of the finding of a mass.

It might be suggested that in those patients upon whom a laparotomy is performed for acute appendicitis or acute cholecystitis, and who at operation show no involvement of these viscera, the great omentum should be examined for pathological changes. If primary torsion is found, no effort should be made to unwind or untwist the twisted area. There is great danger of liberating thrombi which may have formed in the involved veins, with possible subsequent pulmonary embolism. The twisted pedicle should be clamped and the involved portion of the omentum excised. A suture ligature is used to control bleeding in the stump. An attempt should be made to 'omentalize' this stump, by suturing some of the adjacent normal omentum over it, so as to leave no rough surface which may subsequently adhere to other structures. Routine appendectomy is usually performed.

SUMMARY

1. A case report of primary torsion of the greater omentum is presented.

2. The clinical features of this disease condition are discussed.

3. A recommendation is made that in those cases in which operation does not confirm the preoperative diagnosis of acute appendicitis or acute cholecystitis, the greater omentum should be thoroughly examined to rule out the possibility of primary omental torsion.

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SURGICAL DISEASES OF THE LUNG*

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It is almost fifty years (1896) since the first really extensive and authoritative monograph devoted to thoracic surgery was published by Stephen Paget. It offered the following starting statement: "It is sometimes said that surgeons fifty years hence will think as little of our results as we think of the methods of fifty years ago. So far as regards the surgery of the chest, this is utterly untrue. Fifty years ago it had risen above the horizon; it is now nearly at its zenith. Indeed it is possible that we may see its upward movement checked[1]."

In the same year Rehn first successfully sutured a wound of the heart in a human being. One year earlier Roentgen had announced his discovery of the X-ray, probably the greatest discovery in relation to all diseases of the chest in the history of medicine. In 1898, Killian of Mainz invented the bronchoscope. And in 1907, Friedrich, at Brauer's suggestion, performed the first extrapleural thoracoplasty for tuberculosis. Obviously, Paget was premature in his estimation of the ingenuity of modern surgery and surgeons. His error, however, is mitigated by the fact that he had plenty of company before his time and since. In 1935, the man who has done most to advance modern thoracic surgery, Evarts A. Graham, published his monograph on surgical diseases of the chest[2]. In it, he quotes Maude Adams as suggesting that "one would hesitate to resort to so radical a measure (as ligation of a patent ductus arteriosus) which might introduce a new factor of disturbance." In 1940 Gross[3] reported his first 10 such cases successfully treated. However, Gross himself doubted that a patent ductus which had become the site of bacterial endocarditis could be safely ligated. But, in the same year, Touroff and Vesell[4] reported the first such infected ductus to be successfully closed.

This brief historical resumé is significant only in that it points out how far performance has outstripped prophecy in the field of surgery of the chest. Today there is no part of the thorax or its contents which has not been successfully invaded for the relief or cure of disease, with the possible exception of the chambers of the heart. And even this has been attempted in Cutler and Beck's[5] effort to open stenotic valves, to say nothing of recent military work in removing foreign bodies. In a field so extensive and so exciting as this, it is difficult to restrain oneself. And yet some reasonable bounds must be set. Therefore, I will limit myself to a discussion of surgery of the lung, the indications for such surgery, and the results which can be obtained.

The vast majority of surgical diseases of the lung may be divided into three large categories: (1) neoplastic disease, (2) nontuberculous suppurative disease, and (3) tuberculosis. Other rarer conditions, such as vascular anomalies, occur far too infrequently to be brought into such a general survey as this.

PULMONARY MALIGNANCY

For practical purposes, neoplastic disease of the lung is malignancy of the lung. All metastatic neoplasms of the lung are obviously malignant. Of the primary neoplasms of the lung, the frankly benign tumors such as simple fibroma or lipoma are most unusual. One tumor, however, whose nature is still a subject of bitter controversy, occurs more frequently and deserves brief mention. This is the bronchial adenoma. It is a sessile or pedunculated growth, developing in the walls of the larger bronchi and constituting, in varying series, 5 per cent to 10 per cent of intrabronchial tumors. Graham[6] and his followers insist that at best this is a premalignant lesion and at worst it is a frank malignancy of the "mixed tumor" variety. Brunn[6] and others contend that the lesion is unequivocally benign without malignant tendencies. It is said to occur more frequently in women and before the age of forty. The practical aspect of the controversy revolves about therapy. If it is certainly benign, it may be resected via the bronchoscope or surgically by partial pulmonary resection. If it is malignant or potentially so, it requires total pneumonectomy with resection of the regional nodes. We at Cincinnati have yet to see such a tumor. If and when we do, we will decide with Graham that it is at least potentially malignant. And so for the present, we will consider neoplastic disease of the lung as synonymous with malignancy.

As noted above, malignancy of the lung may be either primary or metastatic. The latter we may dismiss for obvious reasons, with only the parenthetical note that a single metastatic nodule of hypernephroma will sometimes be the only metastasis from such a tumor. The primary growth having been

*Presented before the Cabell County Medical Society at Huntington, West Virginia, September 13, 1945.

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removed, removal of the involved lung has, on rare occasions, been a lifesaving procedure. Such an instance, however, is notable only for its rarity.

But what of primary carcinoma of the lung? Is it not rare? Certainly that is the popular medical notion. Adler[7], in 1912, having collected 374 cases of carcinoma of the lung, stated: "On one point, however, there is nearly complete consensus of opinion, and that is that primary malignant neoplasms of the lung are among the rarest forms of disease." It is usually, therefore, startling to a medical audience to be presented with the following statistics:[8] Primary carcinoma of the lung constitutes in various series of autopsies from 8 to 20 per cent of all carcinoma; on the basis of actual statistics its *mean* autopsy incidence is 10 per cent of *all* carcinoma; it ranks in frequency with carcinoma of the stomach, breast and cervix uteri; it accounts for 15,000 deaths annually in the United States; and the incidence of the disease is increasing. In 1920, primary carcinoma of the lung accounted for 1.1 deaths per 100,000; in 1936 it had increased to 3.6 deaths per 100,000. In various surveys it has shown an average increase in incidence of over 200 per cent. Certainly such a disease commands our attention. Certainly it cannot be ignored.

Primary carcinoma of the lung is essentially a disease of middle and later life. True, there are cases, uncommon but not rare, of primary carcinoma of the lung in the late twenties and thirties. But the vast majority of cases (80 per cent) develop after the age of forty. It occurs more frequently in men; the present relative incidence seems to be four men to one woman. There is no apparent racial distinction. Pathologically, all primary neoplasms, according to current opinion, arise from mucosal cells of the bronchus. Actually, three forms are observed: squamous cell carcinoma, making up over 85 per cent of these tumors, and by far the most amenable to therapy; adenocarcinoma, constituting at most 10 per cent; and an undifferentiated type of carcinoma, seen in peripherally arising tumors, and called, from the appearance of the cells, "oat cell" carcinoma. This last group constitutes less than 5 per cent of primary pulmonary malignancy.

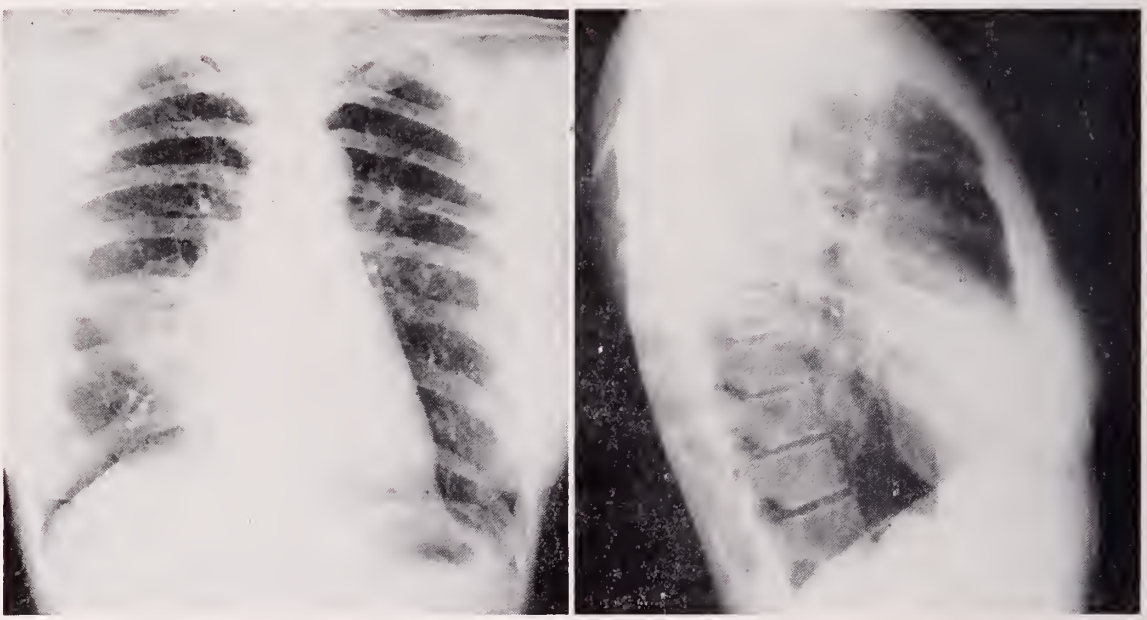

Fig. 1. Carcinoma of right middle lobe bronchus with atelectasis distal to obstruction.

Symptomatically, the earliest complaints are (1) cough, (2) chest "pain," described mainly as "heaviness," "soreness," "pressure," "discomfort" or actual "pain," (3) hemoptysis, usually small in amount and intermittent, (4) dyspnea, a complaint seldom offered spontaneously but elicited only on direct questioning, and (5) loss of weight. This last the patient frequently explains away on the basis of "loss of sleep because of a cough," or some other equally inadequate excuse. We see, therefore, that the presenting symptom is a persistent cough, in a patient 40 years of age or older, (usually a man but by no means always), sometimes associated with loss of weight, discomfort in the chest, and hemoptysis of mild degree.

On physical examination, the findings are exceedingly variable, dependent entirely upon the position

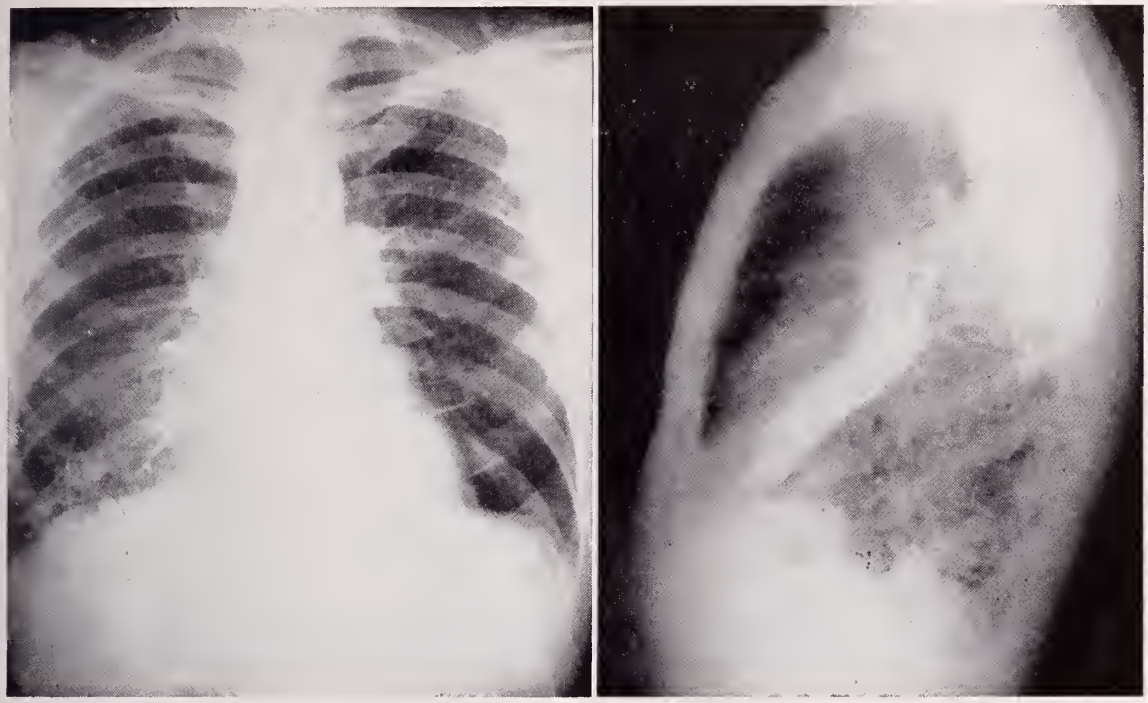

Fig. 2. Another example of carcinoma obstructing the right middle lobe bronchus.

of the tumor and its behavior. There may be no significant findings. Such findings as are present have led to the diagnosis of bronchitis, unresolved pneumonia, chronic fibroid tuberculosis, etc. All too frequently, the examination stops here and the patient is treated with cough medicine, sedation, rest in bed or watchful waiting. The last is most apt to happen when there are no discernable physical findings, a not uncommon occurrence.

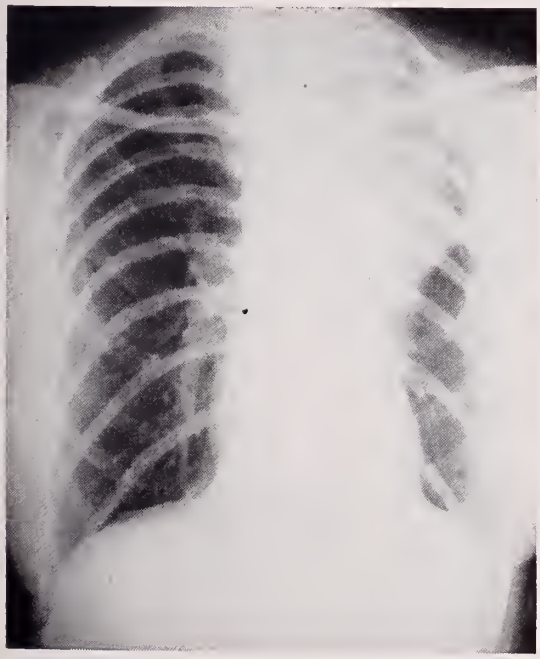

Fig. 3. Atelectasis of left upper lobe distal to obstruction of upper lobe bronchus by carcinoma.

With the evidence which has accrued in the past ten years, one can make the categorical statement that every patient forty years of age or older, presenting himself to the physician with a *chronic cough* deserves an X-ray. If we stop to think for a moment, this becomes the even more inclusive axiom: Every patient with a chronic cough deserves an X-ray. The medical profession has long since accepted as axiomatic the necessity for X-ray of the chest in the presence of chronic cough up to the age of forty, because of the grave danger of tuberculosis. How much greater the necessity, then, where the danger is that of carcinoma.

And what should be expected on X-ray examination? Clear-cut evidence of a tumor mass? From 70 to 75 per cent of primary carcinomas occur at or near the hilus of the lung. Consequently, except for the 25 per cent occurring peripherally, clear-cut x-ray evidence of the tumor itself is frequently per se evidence of advanced malignancy. What is to be found on X-ray, particularly early in the disease, is evidence of bronchial obstruction, either atelectasis or what is called "unresolved pneumonia." Such findings are never primary independent clinical or roentgenological entities, any more than "obstruction" of the pylorus, or "annular constriction" of the colon are primary diagnoses. And cronchial ob-

struction demands investigation. It has been stated authoritatively, and we are in full agreement with the statement that all unexplained pulmonary lesions in patients past forty, however slight, are carcinoma until proved otherwise[9] (Figs. 1 to 5).

In the majority of instances, the cause of bronchial obstruction can be ascertained with relative ease by bronchoscopy. In different series it has been estimated that 69 to 75 per cent of all primary carcinomas of the lung are accessible to the bronchoscope.

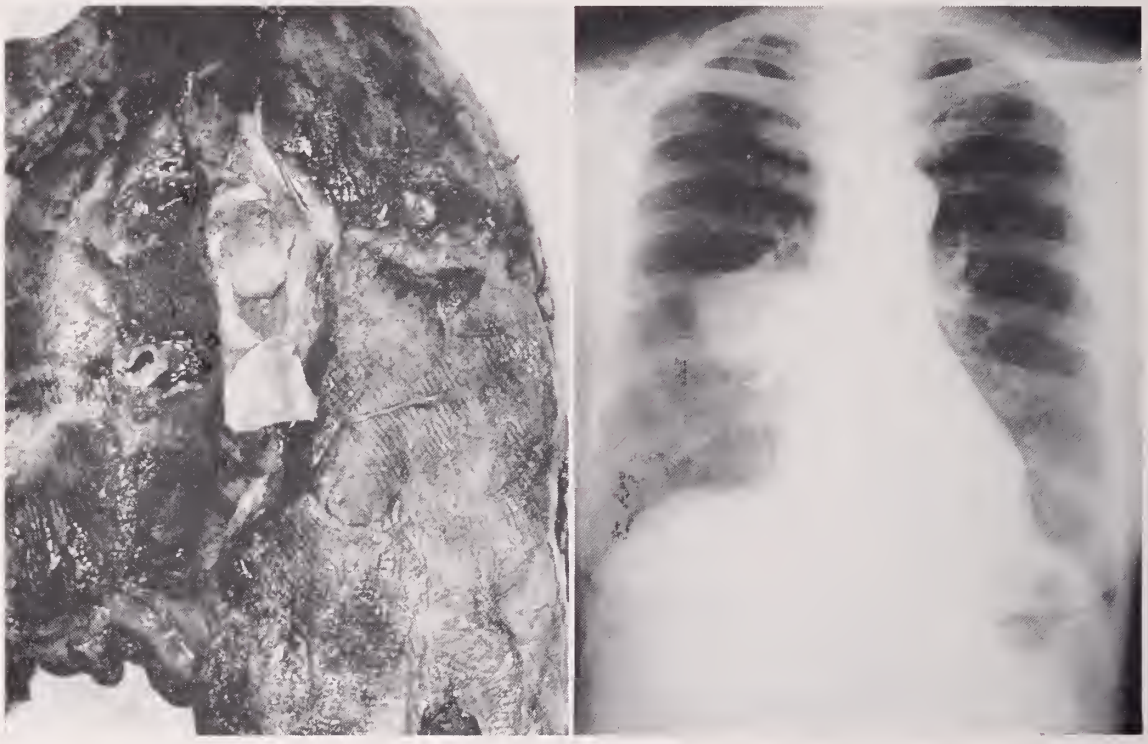

Fig. 4. Right lung removed by pneumonectomy, with bronchus open to show carcinoma of mainstem bronchus. The disproportion between the size of the tumor and the X-ray shadow at the right hilum is accounted for by a zone of pneumonitis about the tumor.

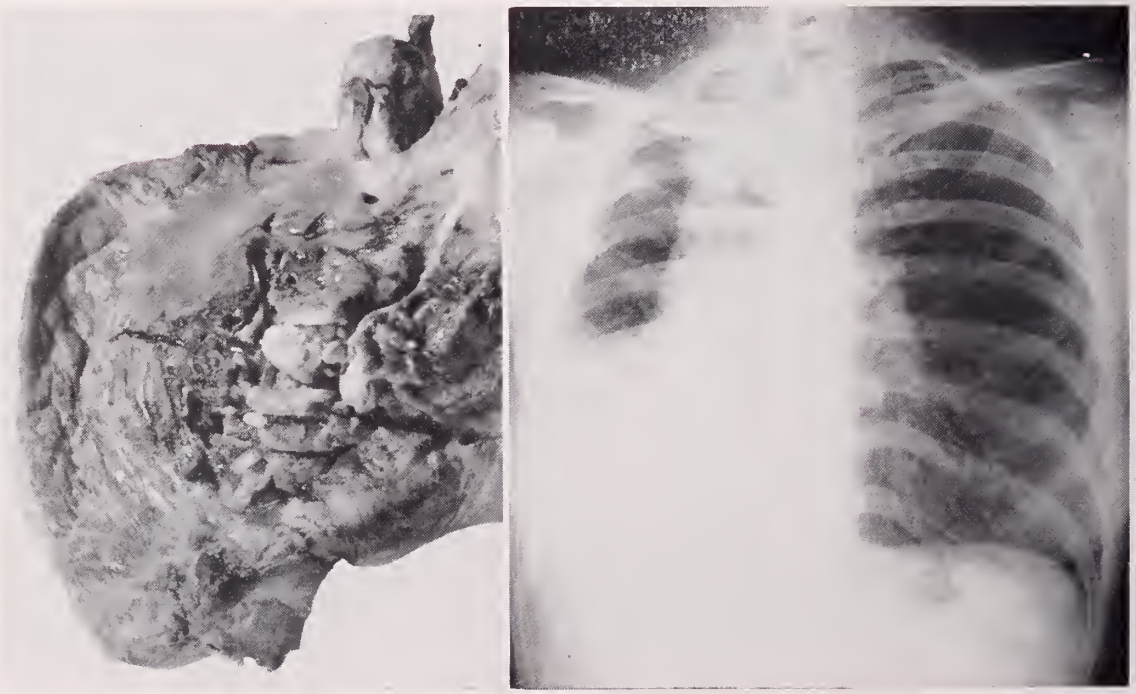

Fig 5. Right lung removed by pneumonectomy, showing carcinoma arising in the brochus to the lower (and middle) lobe. The gross pathology and marked shift in the corresponding X-ray suggest a much more extensive lesion than was found.

There exists the fallacious notion that bronchoscopy is a major and hazardous surgical procedure. In competent hands it is virtually without mortality or morbidity. Certainly on a statistical basis, it does not carry the risk of tonsillectomy. A biopsy specimen is desirable. It is not absolutely essential. The competent bronchoscopist is quite as capable of diagnosing malignancy by appearance as is the surgeon. Where there is doubt, or where a specimen is easily and safely obtainable, it should be taken. If there is any apparent hazard, it should be omitted.

Finally, there are the 25 to 30 per cent of cases not accessible by bronchoscopy. In this group are those tumors arising in the parenchyma of the lung, and those arising from the upper bronchi, notably on the right (Fig. 6). Here anatomic reasons make

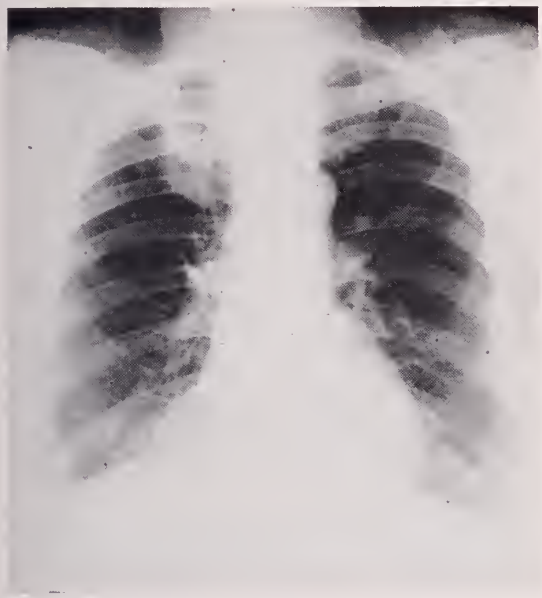

Fig. 6. An early circumscribed primary carcinoma arising in the parenchyma of the right upper lobe.

the tumor inaccessible to direct visualization or biopsy. Retrograde 'scopes have been devised, but even in the most competent hands they are not always helpful. Usually it is easy to prophesy from the position and nature of the x-ray shadow whether or not the lesion will be accessible to bronchoscopic visualization, and so the element of uncertainty will be largely removed.

For this group of tumors and, I cannot emphasize enough, for all patients past the age of forty with pulmonary pathology not fully explained by other methods, the only safe course is exploratory thoracotomy. Here again there exists a legend that such a procedure is fraught with great danger. And, again, one authority after another has demonstrated that the mortality attendant upon simple exploration of the chest is less than 1 per cent. In our own series of approximately 70 cases of all kinds, we have yet to sustain a death in simple exploration of the chest.

Thus you have the usual picture of the diagnosis of primary carcinoma of the lung. The diseases which must be differentiated are not numerous. Pulmonary tuberculosis is the outstanding one. Here the definitive diagnosis must depend upon demonstration of tubercle bacilli in the sputum or in gastric washings. Collateral evidence is of some value in that pulmonary tuberculosis is essentially a disease of younger life; it is not usual to find it starting after forty. The well trained roentgenologist and phthisiologist are quite acutely attuned to the usual roentgenological forms which tuberculosis assumes. Alterations from this "normal" pattern in patients past forty require investigation. It has been found that bronchogenic carcinoma does occur coincidentally with pulmonary tuberculosis, as Ritterhof[10] at the Hamilton County Tuberculosis Sanitarium has brilliantly demonstrated. A confluent mass of anthracotic nodules in silicotuberculosis may prove confusing. In that instance the presence of other silicotic lesions scattered over both lung fields will be most helpful, as will be the positive sputum when present. But, as a basic rule of safety, and, at the risk of being sententious, I must repeat, whenever any doubt exists,—when the diagnosis is not absolutely established,—the unexplained chest lesion in a patient past forty, is carcinoma until *proved* otherwise. There is no temporizing with malignancy. It is the one disease form which gives no quarter and no respite. Mistakes in diagnosis of other disease forms are occasionally remediable. In maglignancy they are fatal.

The diagnosis of carcinoma having been made, the question of therapy arises. Up to five years ago, there was some apparent legitimate controversy between the advocates of (1) x-ray therapy, (2) partial lung resection or lobectomy, and (3) total pneumonectomy. Today, sufficient study and sufficiently large series of cases have been accumulated to demonstrate beyond argument that the only justifiable therapy is total extirpation of the involved lung, with all the accessible regional lymph nodes. There are, so far as I know, no longer any advocates of partial pulmonary resection. Such a procedure is at variance with all principles of surgery of malignancy. It is impossible to resect the regional lymphatics by such a procedure, and without this, success is a matter of the purest luck. A very few

supporters of X-ray therapy still refuse to admit defeat. But the evidence is incontrovertible, and for every case "cured" for a variable period of time by X-ray,—and it is only the isolated single case that can be adduced to prove the efficiency of X-ray—there is a corresponding case living just as long with no therapy. Thus the only case reported to have lived five years after X-ray therapy is that of Harper. Brock reports one patient living eight years without any therapy. Overholt found in one series that the average duration of life with radiation was 5.6 months, whereas untreated cases averaged 8 months. King found the average duration of life in irradiated cases to be 15.4 months as compared with 9.3 months in untreated cases.[11] In short, the treatment of primary carcinoma of the lung is no different from that of primary carcinoma of the breast, the stomach, the rectum, the pancreas, the ovary, the kidney or the bladder. Total excision of the involved organ and the regional nodes is the treatment of choice if feasible and the only justifiable treatment of early cases.

The limits of operability are not easy to define completely. Some criteria of inoperability, however, are clear-cut. The presence of malignant cells in a pleural effusion is one. Such a tumor is inoperable. The presence of a bloody pleural effusion without malignant cells is worthy of exploration. An associated Horner's syndrome means spread into the mediastinum with involvement of the cervical sympathetic chain. It is very doubtful that such a tumor is resectable. Hoarseness with paralysis of the left vocal cord indicates penetration of the recurrent laryngeal nerve on the left, and such a tumor is rarely operable. Usually we find in these patients an associated penetration of the aortic arch, and death occurs within a relatively short time from hemorrhage. Fixation of the diaphragm is not necessarily evidence of involvement of the phrenic nerve, and we would advocate exploration in spite of such a finding. The presence of metastases in accessible lymph nodes, such as the supraclavicular or axillary nodes, or in the liver, are obvious evidence of incurability. Whether palliative pneumonectomy to relieve distressing cough is justifiable is a moot question. We believe, at this time, that it is. Great age in the patient with associated cardiovascular-renal disturbances militate against a successful result. Some clinics will refuse to jeopardize their statistics by attempting to resect tumors in such patients. Our attitude has been that we do not treat statistics, and that a patient will be no less dead from an heroic surgical attempt than he is going to be from a malignancy. If the patient and his family have the fortitude to want an effort made, we do not feel that it is our privilege to refuse.

What are the results? The first patient treated successfully by total pneumonectomy for carcinoma of the lung is a physician still well and working. He was operated upon by Dr. Evarts Graham[12] twelve years ago. Since that time almost 500 cases have been so treated. About 300 of them, at the last calculation, were alive anywhere from 12 years to six months after operation. In the past three years we have seen 50 cases of proven primary bronchogenic carcinoma of the lung. Ten were obviously inoperable for various reasons. Forty were thought worthy of exploration and of these 22 were considered resectable. There were no deaths among the 18 patients simply explored. Among the 22 pneumonectomies there were 7 deaths, an operative mortality of 31.8 per cent. There have been 3 late deaths, eight months to one year postoperatively from extension or metastases. This leaves a current salvage rate of 54.6 per cent.

LUNG ABSCESS

Of nontuberculous suppurative diseases of the lung, two are distinctly amenable to surgery. They are lung abscess and bronchiectasis. Lung abscess is a distressingly common disease seen most frequently following pneumonia; postoperatively following atelectasis or when aspiration has occurred, notably after tooth extraction or tonsillectomy; as the result of infected pulmonary infarction; and occasionally following trauma, such as gunshot wounds of the chest. Depending on the causative organisms, lung abscesses may be divided into two large groups, putrid and nonputrid. The division is a practical clinical one as well as an etiologic one, for the nonputrid abscess, seen most frequently postpneumonic or following an infected infarct, is much less severe in its course and will usually respond to conservative measures. Putrid abscesses, bacteriologically the result of infection with mouth organisms, the symbiotic anaerobic streptococci and staphylococci and occasionally the spirochete and fusiform bacillus of Vincent's infections, are much more stormy in their course, more progressive in their destruction of lung tissue, more prone to such complications as hemorrhage, rupture into the pleura with the development of putrid empyema, and metastatic abscesses elsewhere in the body, notably the brain. These are the lesions that produce copious amounts of extremely foul sputum which makes life a burden to the patient, and the patient a pariah to his friends and relatives.

Naturally, the fundamental prerequisite of therapy in lung abscess is that the presence of the lesion be apprehended. In the majority of instances, the combined physical and X-ray findings make the diagnosis quite simple. There are cases, however, where diagnosis can be most difficult, notably in children, following pneumonia. Here one is frequently dealing with a true unresolved pneumonia, distal to a plugged or stenosed bronchus, which liquifies slowly. The patient continues to be quite toxic in spite of all measures including modern chemotherapy and antibiotic therapy; he is afflicted with a most distressing unproductive cough; the x-ray findings are equivocal. These circumstances strongly suggest abscess and every effort should be made to rule this condition in or out. Bronchoscopy is the procedure of choice. When effective, it is not only diagnostic but also therapeutic, since aspiration of the involved bronchus will effect immediate transbronchial drainage. When, however, the involved area lies far out in the periphery, it may not be within reach of the bronchoscope. Here the physical findings of bronchial to cavernous breathing, bronchophony and pectoriloquy over a circumscribed area strongly suggest the presence of an abscess. A carefully placed thoracentesis needle will usually reveal the pus.

Therapeutically, we feel that lung abscesses should be treated conservatively if possible. It is of extreme importance, however, that such conservative therapy be administered vigorously and that the patient be scrupulously observed. By conservative management we mean adequate, supervised postural drainage three times daily, bronchoscopic aspiration whenever and as often as drainage is not adequate, saturation doses of sulfadiazene and penicillin, and the most complete adjunctive therapy with vitamins, iron and diet. X-rays should be taken weekly or oftener if a change in the patient's condition suggests it. Under such a regimen most of the monobacterial abscesses and quite a few of the polybacterial abscesses will show marked improvement promptly, and will clear in from six weeks to two months.

There is increasing realization among both physicians and surgeons, however, that, unless appreciable improvement occurs promptly, such conservatism should be abandoned and surgery in the form of rib resection and transthoracic drainage of the abscess carried out. Our criteria for surgical intervention are:

1. The abscess fails to recede within six weeks.
2. X-ray and clinical evidence of the process spreading at any time.
3. Any prolonged interruption in the process of resolution of the abscess.
4. Persistent or repeated small episodes of hemorrhage.
5. The presence of a foreign body.

Finally, there are a group of conditions in which drainage alone is inadequate. For these conditions

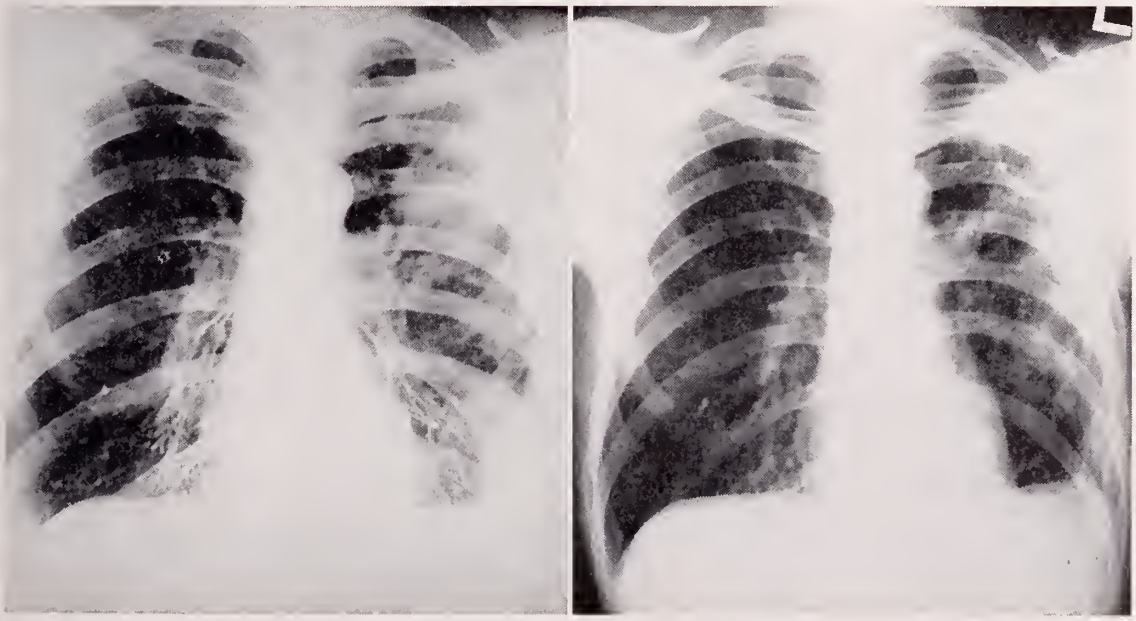

Fig. 7. Multiple abscesses of the left lung. The interval between these films is six weeks. In the latter film, the entire left lung is honeycombed with abscesses.

partial or complete pulmonary resection is necessary. They are:

1. Persistence of abscess in spite of adequate drainage. (Fig. 7)
2. Multilocular abscesses in which adequate drainage is impossible.

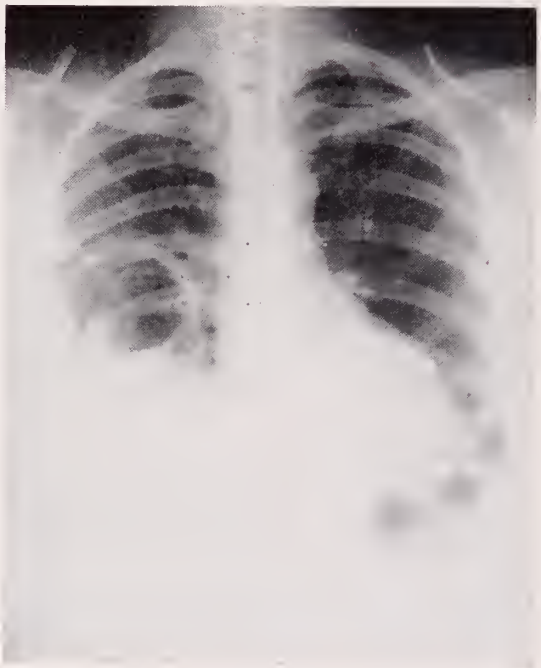

Fig. 8. Old abscess of right lung involving all lobes, following bullet wound of chest. This patient had had 13 operations for drainage and plastic repair, with recurrence. Pneumonectomy with cure.

3. Abscesses so placed as to be inaccessible to simple drainage, e. g., close to the mediastinum but away from the hilum; or beneath the scapula in the upper lobe.
4. Persistent bleeding.
5. Residual bronchiectasis in association with abscess.
6. Multiple abscesses. (Figs. 8 & 9)
7. Any question of malignancy.

BRONCHIECTASIS

Bronchiectasis, the other nontuberculous suppurative pulmonary disease of surgical interest, is essentially a disease of children and young adults. It was first described in 1808 by Cajol, an assistant of Laennec, but the incidence of the disease was not recognized until the development in 1922 of lipiodol by Sicard and Forestier, and the use of that substance to outline the bronchial tree roentgenologically. If one were to judge by the incidence of diagnosis in this region, one would be apt to consider it a relatively infrequent disease. However, studies in various clinics, notably those of Ochsner in New Orleans, Brunn in San Francisco, Churchill in Boston and various groups in New York, indicate that it is extremely common, ranking second only to tuberculosis. The bacteriology of bronchiectasis is apparently not specific. Pathologically it consists of infection of the bronchial walls, loss of elastic and muscular tissue and consequent patchy dilatation of either cylindrical or saccular nature (Fig. 10) of the in-

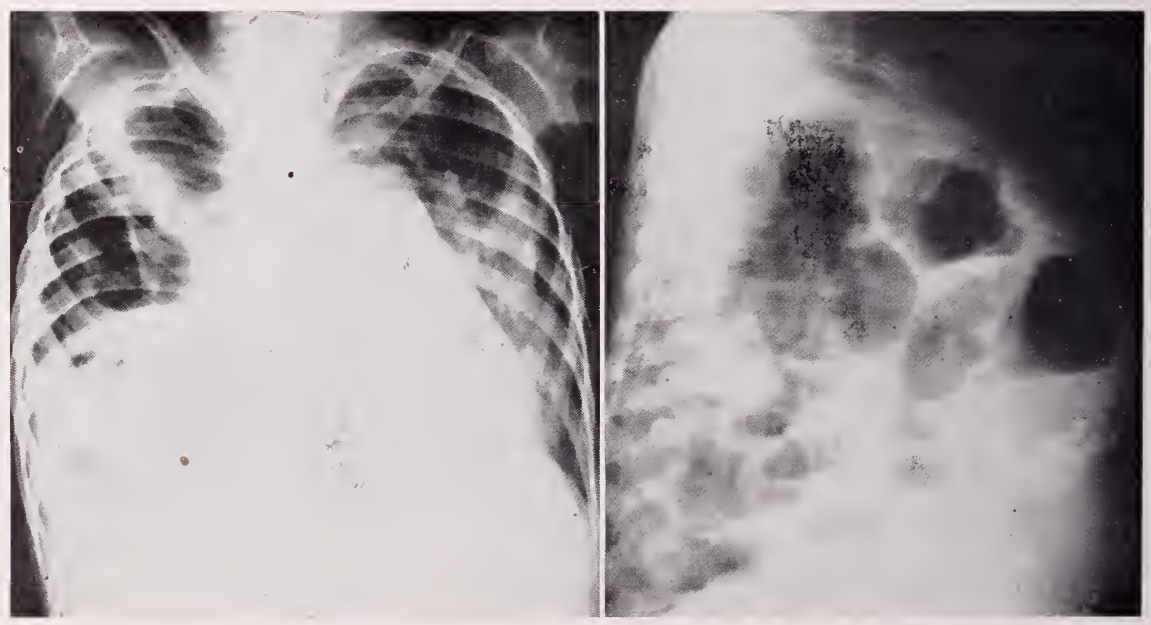

Fig. 9. Multiple abscesses of the right lung of 3-year old child following pneumonia. Note emphysematous hypertrophy of thoracic cage.

Fig. 10. Saccular bronchiectasis of left lower lobe and lingula.

volved portion of the bronchial tree. Occasionally the condition appears so early in life as to seem at least, congenital (Fig. 11). The disease is usually limited to the pendant lobes and most frequently, in early stages, to one side. There are cases, however, where an entire lung has become involved, termed universal bronchiectasis of that lung. On the right side, the middle lobe frequently will be involved, together with the lower lobe; and on the left side the lingual tip of the upper lobe. Because of this, it is imperative that patients with bronchiectasis have proper visualization of their bronchial trees before surgery is instituted, since failure to remove all involved portions will necessarily result in failure to relieve the patient of his disease.

Clinically, such patients are the victims of chronic cough, or frequently recurring "deep" chest colds. Their cough is productive of much foul sputum, and sooner or later hemotysis occurs. Such patients are usually diagnosed as having chronic bronchitis, or pulmonary tuberculosis. Both conditions can be ruled out by means of the X-ray, and particularly the bronchogram. In addition, pulmonary tuberculosis is most frequently an upper lobe disease, while bronchiectasis is a dependent lobe disease. Finally, in tuberculosis, persistent examination of the sputum and gastric washings will eventually show tubercle bacilli. As the disease progresses, there is a tendency for extension on the same side and then to the opposite lung, most probably by spillage. Absorption of toxic material leads to debilitation, loss of weight, anemia, osteo-arthropathy or clubbing of the digits and painful joint changes, and finally to metastatic abscess elsewhere, notably the brain. An alternative

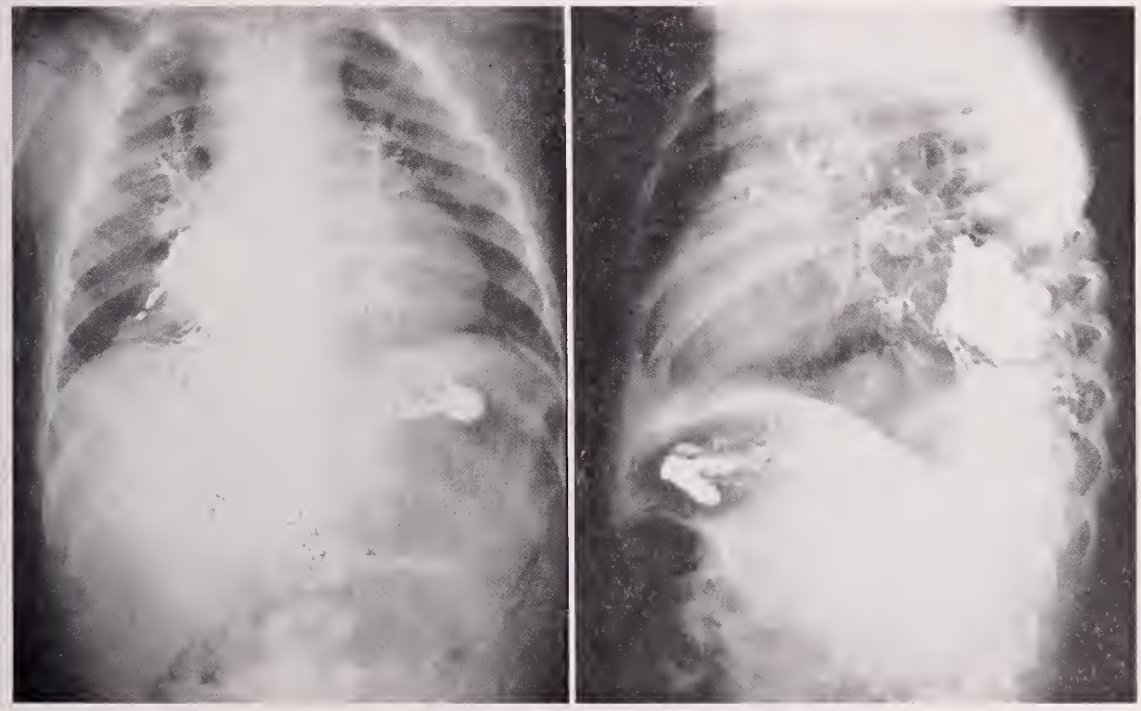

Fig. 11. Bronchiectasis of right lower lobe in 20-month old boy. Confluent position of bronchi, giving the appearance of abscess, suggests congenital origin of lesion.

terminal state is the development of amyloidosis and death.

The ideal treatment of bronchiectasis is early diagnosis and vigorous medical therapy consisting of effective and persistent postural drainage, supplemented when necessary, by repeated bronchoscopic aspiration, together with the use of expectorants, suitable diet and other general measures. Sulfadiazene and penicillin should, of course, be used in saturation doses. The purpose of all this therapy is to prevent the development of irreversible morphologic changes in the bronchi. When these develop, medical therapy is unavailing and the case becomes a surgical problem. If, at this stage of things, surgery is not utilized and the disease is allowed to progress, the patient ultimately arrives at a state where so much lung tissue has become involved, and the vital capacity so seriously reduced that safe surgery is no longer possible. The patient then becomes one of those dismal problems of palliation that are the bane of the physician's, notably the family physician's, existence.

Numerous surgical measures have been tried in the past in an effort to cure bronchiectasis, including pneumothorax and phrenic interruption, both of which are illogical, and thoracoplasty which has proved inadequate because of the position of the involved portion of the lung. It has been recognized since 1901 when Heidenhain[13] first performed lobectomy for bronchiectasis that pulmonary resection of the involved area was the logical and obvious treatment. However, the mortality attendant upon such attempts, and the incidence of failure to effect a cure, until recently were so high that the procedure failed to gain favor. With modern improvements in surgical and anesthetic technic and with increased knowledge of the disease and diagnostic methods of determining its presence and extent, immense strides have been made. Churchill[14] has reported a series of 84 cases with a 4.7 per cent mortality rate; O'Brien[15], a series of 15 cases with 1 death (6.6 per cent), and Graham[16] a series of 66 with 1 mortality. Our own series has been relatively small but is growing. We have had 15 cases with 1 death.

PULMONARY TUBERCULOSIS

Finally, in pulmonary tuberculosis, particularly beyond the minimal stages of activity, therapy is preeminently surgical, assuming, of course, that pneumothorax, the most ideal form of collapse therapy, may be termed an instrumental, and therefore surgical, procedure. It would be out of place to attempt to give, here, even a resumé of this immense topic. You are as thoroughly familiar as I with the now classical procedures of phrenic nerve interruption and extrapleural thoracoplasty. There are, however, other surgical procedures in the treatment of pulmonary tuberculosis which are gaining progressively wider use, adding materially to the flexibility of treatment of this disease, and extending appreciably the number and types of patients for whom something can be done. A partial list of these operations follows:

1. Closed intrapleural pneumonolysis.
2. Open intrapleural pneumonolysis.
3. Extrapleural pneumothorax.

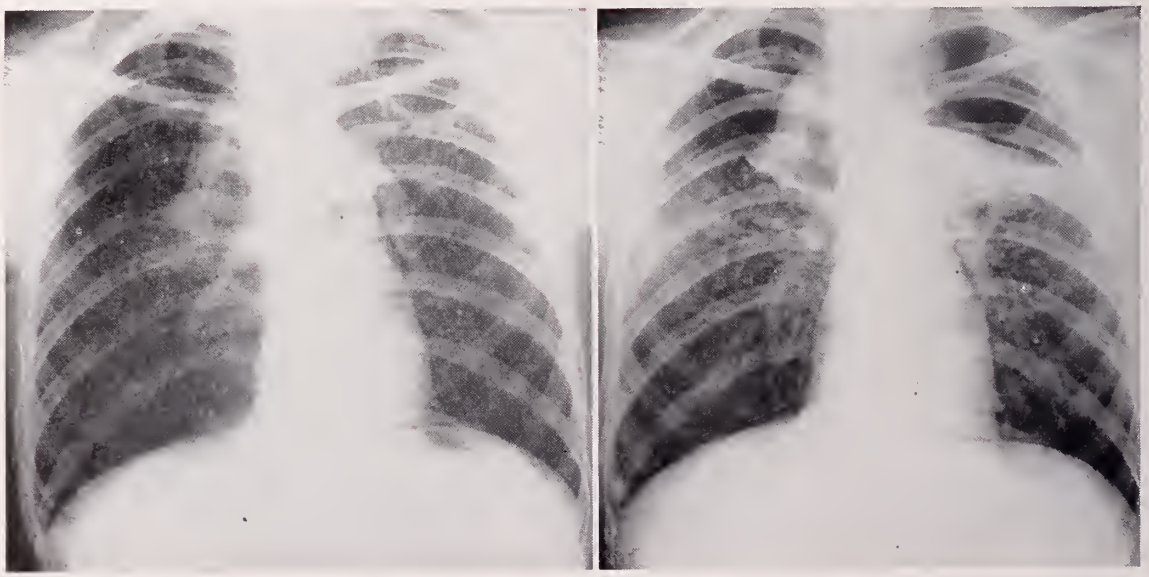

Fig. 12. Large tuberculous cavity at left apex in 15-year old boy, treated by extrapleural pneumothorax. There is a selective pneumothorax on the right.

4. Extrapleural paraffin pack or plombage.
5. Lobectomy.
6. Pneumonectomy.

Closed intrapleural pneumonolysis, carried out through a trocar thoracoscope, permits the surgeon, in properly selected cases, to divide with an electrocautery, thin adhesions which are holding a lung out, thereby converting an unsatisfactory pneumothorax into a satisfactory one. This procedure is possible, of course, only when the limiting adhesions are quite thin and do not contain attenuated lung tissue. In the latter instance, the procedure is quite dangerous. For such cases, in our clinic, interest has been revived in open intrapleural pneumonolysis, wherein the pleural cavity is opened widely and, under direct visualization, such adhesions are dissected off the chest wall, taking the parietal pleura and endothoracic fascia when necessary.

Extrapleural pneumonolysis was devised as far back as 1893 by Tuffier and has been sporadically revived and revised during the past fifty years. The procedure consists in the resection of a small piece of rib, most frequently the fourth rib posteriorly, and through this opening, the development of a dissection plane outside the parietal pleura. The space thus created is maintained with a "filling." In modern usage, this "filling" is either air, in which instance the procedure is commonly known as an extrapleural pneumothorax (Fig. 12), or with specially prepared paraffin, in which event it is referred to as a paraffin pack (Fig. 13). Such a procedure is obviously best suited and most extensively used in apical lesions. It is employed in those patients in whom simpler measures, such as phrenic interruption or intrapleural pneumothorax, are either impossible or ineffective, and in whom the more radical extrapleural thoracoplasty is either too dangerous or for other reasons, undesirable. They are particularly useful, for example, in young people who are still growing and in whom thoracoplasty might produce severely crippling structural deformities.

Lastly, and most recently, partial or total pulmonary resection has been advocated and successfully used in well selected cases of pulmonary tuberculosis. There is, perhaps, no more controversial or unsettled topic in medicine today. It has violent champions and equally vehement opponents among both internists and surgeons, without any of the usual alignment of internists as conservatives, and surgeons as radicals. Consequently, the indications for, and limitations of, such therapy are not as yet well crystallized. At the moment, three indications for pulmonary resection seem fairly widely accepted. They are:

1. Bronchial stenosis with atelectasis (Fig. 14).
2. Tuberculous or nontuberculous bronchiectasis (Fig. 15).
3. Lower lobe cavitation, not amenable to pneumothorax, and because of its position, inaccessible to collapse by thoracoplasty.

Many other criteria appeal to individuals or clinics, but the controversy is too intense to justify their discussion here. Furthermore, although Overholt[17] has reported 63 cases and Maier[18] some 27 cases,

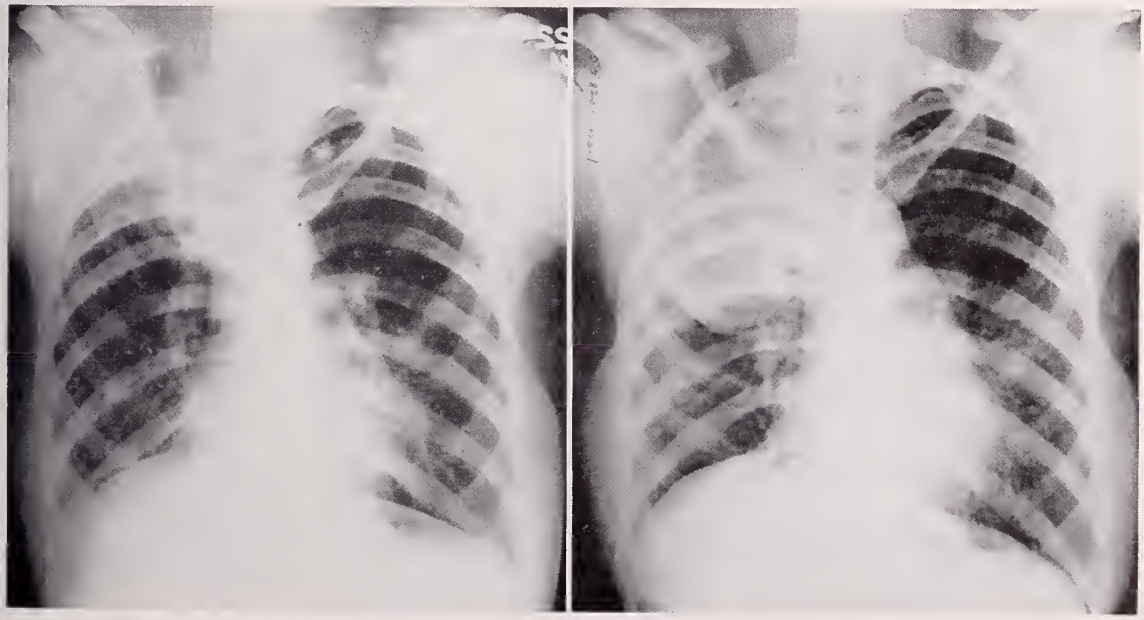

Fig. 13. Tuberculous focus containing multiple cavities at the right apex in a 14-year old Negress, treated by extrapleural pneumonolysis with paraffin pack.

with relatively low operative mortalities, the procedures are of too recent date to be properly evaluated. That pulmonary resection in properly selected cases of pulmonary tuberculosis is ideal there seems little question. How widely applicable such therapy will be remains to be seen. In our clinic, the idea has been received with great caution. We are still groping, both as to the proper selection of cases as well as to technical considerations. Our results have been neither too encouraging nor too discouraging.

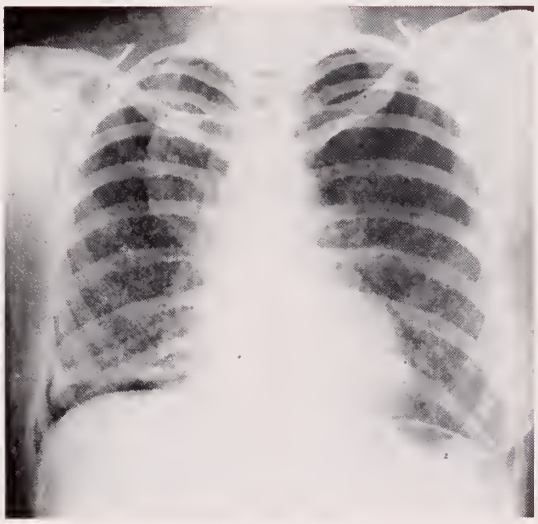

Fig. 14. Atelectasis of right upper lobe resulting from tuberculous stenosis of bronchus to right upper lobe. The residual of an unsuccessful pneumothorax may be seen at the right base.

TECHNICAL CONSIDERATION

In closing this discussion of surgery of the lung, a brief word about technical matters seems pertinent. Above all, successful pulmonary surgery depends upon teamwork. In his own way, each member of the team is equally important. Notably, proper anesthesia is indispensable. Such details as ether-oxygen versus cyclopropane-oxygen, and intratracheal tube versus mask vary from one clinic to another. But there is no substitute for an intelligent, highly skilled anesthetist, specially trained in the anesthesia of intrathoracic operations. During these procedures the surgeon and patient are completely at his mercy. We have settled down to one anesthetist. To him we delegate not only the anesthesia but also the control of intravenous therapy during the procedure, and gas therapy afterward. These procedures can be carried out with reasonably well trained assistants and scrub nurses. Using the same assistants and scrub nurses constantly, however, makes the surgeon's task indescribably easier.

The fundamental prerequisite of the operative procedure itself is adequate exposure. This is accomplished by the use of a long, posterolateral incision, mobilization of the scapula, and resection of the entire fifth rib. The pleural cavity is entered through the bed of this rib and usually the adjacent fourth and six ribs are mobilized by removing one-inch segments of each close to the vertebral articulations.

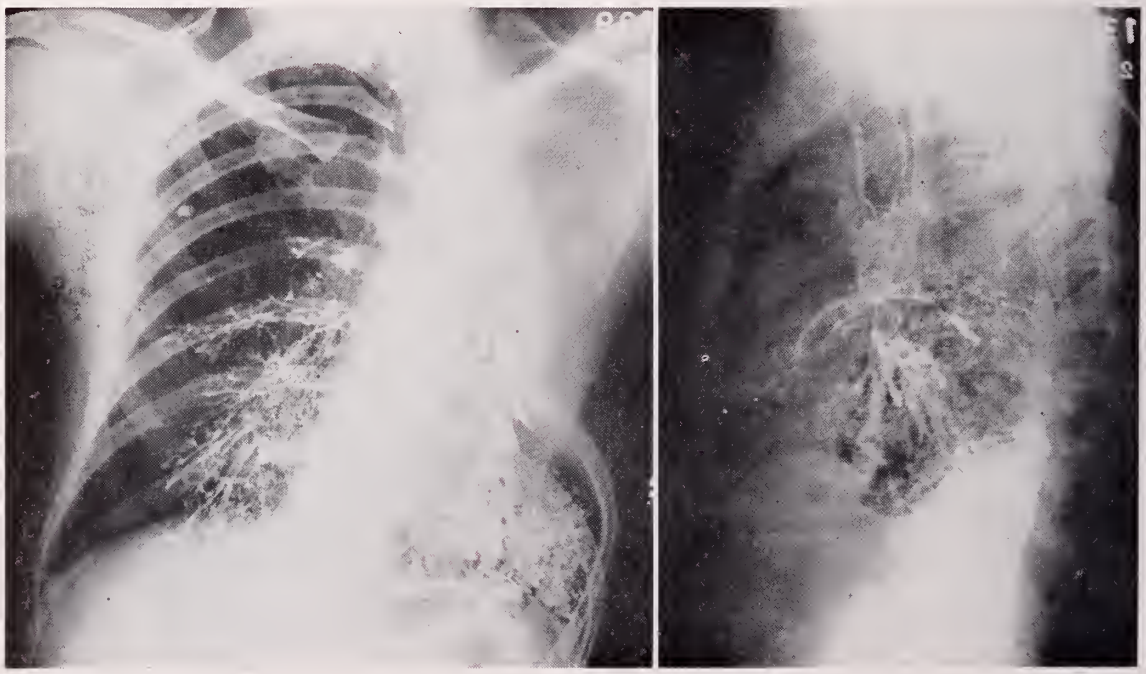

Fig. 15. Residual bronchiectasis at left base unrelieved by thoracoplasty, producing copious amounts of positive sputum.

Spreading of these ribs provides a very large space in which to work. In the subsequent closure of the chest wall, which is done in layers, there is no appreciable deformity, and movement of the shoulder girdle is unhampered. In the actual removal of all or part of a lung, the thing that peculiarly characterizes modern thoracic surgical technique is the anatomic dissection and isolation of the individual hilar structures followed by separate and secure ligation of each before division. This alone accounts for the comparative safety of pulmonary resection today as contrasted with the hazards of even five years ago.

During the procedure we keep two intravenous drips running constantly, fitted with three-way stopcocks, so that they can be cleared if it becomes necessary. Blood is used freely. We average three units of 500 cc. each at an operation upon an adult. We frequently use more postoperatively. When the patient is a child, however, one must exercise great caution in this respect, lest the circulation be overloaded, and the patient develop pulmonary edema. We have found it wise to have the assistance of a competent pediatrician to estimate the safe total volume that the patient can be given. The use of oxygen postoperatively is decided for the individual patient. We have no set rule. When oxygen is used, we prefer a B. L. B. mask covering nose and mouth, to any other method. It is of great importance, however, that atelectasis be prevented or overcome promptly if it does develop. Thorough aspiration of the tracheobronchial tree by the anesthetist, the use of the Trendelenburg position until consciousness returns, hourly changes of position, "coughing" of the patient, repeated aspiration of the hypopharynx and trachea, and hyperventilation with carbon dioxide-oxygen mixtures all are used unsparingly. We feel that atelectasis is one of the great postoperative hazards of thoracic surgery. Other details of postoperative routine are fairly well standardized, but are hardly pertinent to this discussion.

And so, in a very sketchy and rapid fashion we get something of a panoramic view of the extent to which surgery of the lung has developed in the last two decades. Thoracic surgery is the infant field of surgery, but it is a robust and growing child whose potentialities are just beginning to be realized, Stephen Paget to the contrary notwithstanding.

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TOXIC PSYCHOSIS DUE TO BROMIDES

A large field for psychiatry in the practice of medicine is in the psychotic reactions coincident with the fever and toxemia of infectious diseases with exhaustion in metabolic and deficiency diseases and cardiorenal pathology. Patients with pneumonia, influenza, cardiac decompensation may, and often do, become confused, delirious, depressed, and suicidal. It is an axiom that every somatic disease has clinically a mental as well as a physical expression.

The typical reaction type to fever and bodily poisoning is delirium, motor excitement, incoherence, hallucinosis, disorientation, deep confusion, or at least some degree of clouding of consciousness, convulsions; catatonia and stupor may occur. If the physician has clearly in mind the febrile and toxic genesis of these symptoms, he will at once appreciate the logic and lifesaving effects of removal of the cause, elimination, large fluid intake, avoidance of narcotic drugs, hydrotherapeutic, tonic, and dietetic routine.—F. F. Dupree, M. D., in J. Tenn. St. Med. Assn.

The President's Page

Backward or forward, which? I am not one who believes the day of the individual is past. Yet I am firm in the belief that we must have a pooling of knowledge and means in a county and community effort if all the people are to get good medical care.

Doctor Alexis Carrell, in "Man the Unknown," says: "Individuality is doubtless real, but it is much less definite than we believe, and the independence of each individual from the others and from the cosmos is an illusion." Will we ever wake up to the trend of the times?

The people of West Virginia are determined to have good medical care at a price they can afford to pay. Such care must include effective preventive medicine, emergency hospital or clinic service, and easily accessible consultant service by specialists.

The highly trained doctor is most often found in our thickly populated centers. Yet considerably more than half the population of our state continues to be rural, and the doctors in our small towns and rural areas continue to be individualists.

Can the average home function adequately as a hospital? Time was when rural people feared even the term "hospital." Gone is this fear and in its place we hear a plea for hospitalization, and for diagnostic and treatment facilities easily available and at a cost they themselves can pay.

The grouping of doctors in our counties at medical centers, cooperating with educated and interested laymen who really know the needs in their communities, will mean that we can supply the essentials of good medical care at a minimum cost. At this time the cost to the public to maintain us as "individualists" is resulting in the rapid growth of other groups of "health experts" in our state.

Andrew E. Merrick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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R. H. Edwards, M. D. (1948).....Welch
G. G. Irwin, M. D. (1947).....Charleston

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Business Manager
Mr. Charles Lively.....Charleston

Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journal, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

THE PRESIDENT ELECT

Dr. Wade Hampton St. Clair, long an outstanding surgeon of Bluefield, was the unanimous choice of the House of Delegates for President of the West Virginia State Medical Association.

During his entire medical career, Dr. St. Clair has been interested in the affairs of his local medical society and the state medical association. He brings to this important office a wealth of experience gained through contacts with doctors from all over the country. Just recently he has been serving as chairman of the committee on relocation and reestablishment of returning medical veterans.

Doctor St. Clair was born April 18, 1877, in Tazewell County, Virginia, only a few miles across the state line from his adopted home in West Virginia. He received his academic training at Randolph-Macon Academy, Bedford, Virginia, and Emory and Henry College, Emory, Virginia. He received his medical degree from the University of Virginia in 1900.

In 1902 he became a partner of Dr. J. Francke Fox in the practice of medicine and surgery in Bluefield and was a prime mover in the development of the Bluefield Sanitarium, the Stevens Clinic at Welch, and the Clinch Valley Clinic at Richlands, Virginia. At the present time, he is chief surgeon at the Bluefield Sanitarium.

He is a member of the American College of Surgeons, and has attended various surgical clinics in this country and in Europe. He has made several contributions to surgery, notably to surgery of the gallbladder.

In civic and business affairs he is a Rotarian, and is vice president and a director of the Flat Top National Bank at Bluefield.

Dr. Wade H. St. Clair

Two sons were born to Dr. and Mrs. St. Clair. One, Dr. Hampton St. Clair, is engaged in the practice of surgery with his father. The other, Dr. Alex St. Clair, was a flight surgeon in the U. S. Army and, in 1943, was lost in a flight from India to China.

The House of Delegates acted wisely in naming Doctor St. Clair as the 80th president of the State Medical Association. He will prove to be a worthy successor to the incumbent, Dr. Andrew E. Amick. We congratulate the State Medical Association and extend to Doctor St. Clair our best wishes for a successful term.

HUNTINGTON, 1946

The convention at Huntington was a huge success. Notwithstanding the shortage in hotel rooms, threatened coal and rail strikes and other lesser worries, the attendance was the second largest in

the history of the West Virginia State Medical Association.

Many doctors stated that the scientific program surpassed any similar program presented at past meetings. Our doctors in West Virginia expect the best and certainly no one was disappointed with the quality of the general scientific sessions at our 79th annual meeting. It is significant that the average attendance at the various sessions usually exceeded 200.

The members of all of the convention committees deserve and have the hearty thanks of the doctors of West Virginia for arranging for them a three-day program that will be remembered as one of the best in the long history of the Association.

It was with great pleasure that the Association welcomed back so many returned medical veterans who have been missed at annual meetings during the past four or five years.

THAT GALLUP POLL

We have long suspected that much of the alleged sentiment for compulsory governmental sickness insurance derives from federal bureaucrats, lopsided social workers, boondogglers, crystal gazers, and the notoriety seeking communistic fringe of hangers-on around governmental high places. A recently reported Gallup poll tends to confirm this suspicion. In reply to a question as to what should be done to provide for the payment of the costs of medical care, 26% thought nothing should be done; 17% favored voluntary health insurance plans analogous to Blue Cross hospitalization plans; 16% frankly admitted that they did not know what, if anything, should be done; 12% favored governmental insurance under social security; 11% thought special grants should be made for hospitals and clinics for the needy; 6% favored private or community charity; and the remaining 12% had various suggestions to offer.

As to the Wagner-Murray-Dingell bill in particular, 63% of those interviewed had neither heard nor read of such a bill, and of the college bred only 66% had ever heard of it! Of those interviewed, 32% believed that the quality of medical care would be better under a compulsory governmental sickness insurance scheme; 35% thought it would be worse; 23% thought there would be no change in quality; and 10% had no opinion one way or another.

Certainly there does not appear to be an overwhelming demand from the rank and file of the citizenship for compulsory sickness insurance.

EVENTS CONTRADICT THE SENATOR

Senator James E. Murray, one of the authors of the Wagner-Murray-Dingell bill, was the guest speaker at a meeting of the Sociology and Social Work Club at West Virginia University, May 8. He was the guest of the University Club at an informal dinner preceding the meeting.

In addition to university professors and students attending the meeting, there was a large representation from labor groups.

In the May 10 issue of Brooks Cottle's Morgantown Post, the lead editorial covered fully the argument presented by Senator Murray. This editorial, which will be of interest not only to doctors but to the people of this state generally, is reproduced in full:

Senator James E. Murray of Montana made an address at University convocation exercises Wednesday night devoted mainly to an argument on behalf of what its opponents call "socialized medicine" and what he calls a "national health program."

It doesn't make much difference what you call this proposed legislation as long as you understand that it is a compulsory medical and hospitalization insurance program to be financed by a payroll tax on workers and employers and administered by the Federal Government.

Senator Murray made his address at a time when existing circumstances in this country argue with devastating effectiveness against the program which he and his associates are seeking to have Congress adopt.

What is this Federal Government which Senator Murray would have take full charge of the medical and hospital services and facilities of the nation?

It is a Government which, at the very moment Senator Murray was speaking, finds itself paralyzed in attempting to discharge commitments and obligations it has already incurred.

It is a Government which thus far has been unable to find any way to deal with a coal mine strike which President Truman himself has described as bringing the nation to the verge of disaster.

It is a Government which, at the last minute, is forced to adopt a stop-gap method of extending Selective Service for an emergency period of 45 days to prevent a breakdown in the military commitments this country has assumed as part of winning the war.

It is a Government which has the bear of price control by the tail and doesn't know how to let go—while the nation suffers from the scourge of black markets and poorly concealed inflation.

It is a Government which, by its official pronouncements, has recognized the primary need of maximum production, but which has been unable to translate those pronouncements into policies resulting in production.

It is a Governent which for 13 years has been steadily advancing in the direction of "be-all-and-do-all," and which has even more steadily been demonstrating a growing incapacity to substitute a "papa-knows-best" paternalism for the enterprise and initiative of the American people.

Is this the Government to which all Americans desire to entrust their medical care and hospital treatment? Is this the Government which they desire to receive the power to tax them and their employers to build up a gigantic fund (of several billion dollars annually) to pay their doctors and their hospital bills through the administration of a single Federal official in Washington?

Senator Murray boasted at the meeting here Wednesday night that he was a great friend of small business, that as chairman of the Senate Small Business Committee he had saved small business men from disaster and ruin during the war.

Didn't it strike him as an ironical contradiction that, for all his love of small business, he should seek to force the doctors and the hospitals of the United States into one gigantic Federal pool and that he should seek to force all Americans, regardless of their personal preferences and choices, to pay into this pool?

Government control of medical practitioners and hospitals is nothing new in this country. From the very beginning of the republic, the states have operated and maintained mental hospitals—and today they stand out as the blackest mark on our health record. For more than a quarter of a century, the Federal Government has operated hospitals for war veterans—and only a few months ago some of the leading advocates of Federal compulsory medical and hospitalization insurance made out a convincing case against the inferiority of the medical treatment and the hospital care in these Federal hospitals.

If the states have failed so miserably in their long operation of the mental hospitals and if the Federal Government has done so poorly in its conduct of the veterans' hospitals, what reason is there to suppose that the Federal Government, operating through a single administrator, could do a better job in providing medical and hospital service for more than 130 million Americans? Surely, if the force of public opinion is effective in promoting good public policies in medical treatment and hospital care, it should have acted for the benefit of persons suffering from mental diseases and for the benefit of men who carried the brunt of battle. If public opinion has not been strong enough to compel good care for the mentally ill and war veterans, what hope is there that it can operate any more effectively for an all-inclusive compulsory Federal program such as Senator Murray is promoting?

These times in which we live, these perplexities which we see before our eyes, these confusions which harass and vex us with their fret and fume "plead like angels, trumpet-tongued against the deep damnation" of abandoning ourselves to any such benevolent despotism and undemocratic compulsion.

General News

STATE MEDICAL ASSOCIATION ELECTS DR. WADE H. ST. CLAIR PRESIDENT

Dr. Wade H. St. Clair, of Bluefield, was unanimously elected president of the West Virginia State Medical Association at the second session of the House of Delegates at Huntington, May 14. Dr. James S. Klumpp of Huntington, recently released from the Navy with the rank of Captain, was named first vice president, and Dr. B. L. Page, of Buckhannon, now president of the Central West Virginia Medical Society, was elected second vice president.

Dr. T. M. Barber, of Charleston, who has served several years as treasurer, was unanimously reelected.

Dr. Walter E. Vest, of Huntington, and Dr. Wm. P. Black, of Charleston, were reelected A. M. A. delegate and alternate, respectively, for the two-year term ending December 31, 1948.

Councillors were reelected as follows: First District, John P. Helmick; Third District, J. E. Wilson; Fourth District, A. R. Sidell; Fifth District, J. L. Patterson; and Sixth District, Thomas G. Reed. Dr. H. M. Porterfield, of Martinsburg, was elected councillor from the Second District, to succeed Dr. Guy H. Michael who was not eligible for reelection.

All of the elected officials will take office January 1, 1947.

Scientific Work Committee

Immediately after his election, Dr. St. Clair named a Scientific Work (Program) Committee as follows: Dr. Frank J. Holroyd, Princeton, chairman; and Drs. Cecil O. Post, Clarksburg, and D. A. MacGregor, Wheeling.

All of the present members of the Committee on Maternal Welfare and Child Welfare were reelected for the ensuing year. The chairman of each of these committees is to be appointed by the new president.

Resolutions Adopted

Several resolutions were presented at the first session of the House of Delegates and Dr. Thomas L. Harris, chairman of the Council, moved that a reference committee be appointed to which all of the resolutions should be referred. Opposition to this procedure developed from the floor, but the motion carried by a standing vote of 45 to 19.

The president appointed the following as members of the reference committee: Dr. Frank J. Holroyd, Princeton, chairman; and Drs. Russel Kessel, Cecil O. Post, Russell Bond, and Don Kessler. The report of the resolutions committee was adopted at the second session of the House of Delegates.

Resolutions adopted are printed in full elsewhere in this issue of the Journal.

A resolution offered by Dr. J. J. Brandabur of Cabell County, calling upon the government to declare as eligible for immediate discharge all doctors holding the degree of M. D. who have served in the armed forces three years or longer, was rejected.

Constitutional Amendment Rejected

Final action on the adoption of the amendment to the Constitution offered at the annual meeting at Clarksburg in 1945, providing for the election of affiliate members of the State Medical Association was taken at the second session of the House of Delegates. The amendment was rejected by a vote of 39 to 24.

The Cabell County delegation was instructed and voted as a unit for the constitutional amendment and resolution offered by Doctor Brandabur.

Amendments Proposed

Certain amendments to the Constitution of the West Virginia State Medical Association, sponsored by the Cabell County Medical Society, were offered by Dr. O. B. Biern, of Huntington, at the first session of the House of Delegates. The amendments in the form submitted for consideration will be printed in two separate issues of the West Virginia Medical Journal published prior to the annual meeting in 1947. The proposed amendments in substance are as follows:

1. Members of Council to be limited to one term in office.
2. The immediate past president to serve as chairman of the Council but not as a delegate to the State Medical Association, and no past presidents to serve as members of the House of Delegates unless duly elected as delegates by their respective component societies.
3. No member of the West Virginia State Medical Association to hold more than one office in the Association, either appointive or elective at one and the same time.

Dr. Andrew E. Amick, president, presided at both sessions of the House of Delegates and practically all of the component societies had full delegations present.

1947 Convention City

Choice of a convention city for 1947 was deferred pending the determination of the status of the former Greenbrier Hotel, at White Sulphur Springs, West Virginia, taken over during the war by the government for use as an Army General Hospital. The Council was directed to select the place and fix the dates for the next meeting with the general understanding that White Sulphur Springs will be selected if the Greenbrier is restored and in operation by next summer.

MODERN ATTENDANCE RECORD SET AT ANNUAL MEETING AT HUNTINGTON

More than 400 doctors attended the 79th annual meeting of the West Virginia State Medical Association at Huntington, May 13-15, 1946. The doctor registration totaled 429 out of an overall registration of 541. Many visiting doctors were present from other states. and representatives of the local veterans hospital at Huntington, the Veterans Administration at Washington, and the regional offices at Richmond were also present.

Modern Attendance Record

The attendance of 429 doctors sets a new modern record for West Virginia meetings. A total of 350 doctors attended the meeting at Huntington in 1942. Only one time before has the 1946 attendance been exceeded and this was at a meeting in Clarksburg several years ago when 502 West Virginia doctors were registered.

The general scientific sessions were more largely attended than at any time in the history of annual state medical meetings. It was necessary at times to provide additional chairs to take care of the unexpectedly large attendance of members.

All of the speakers scheduled for addresses appeared on the program with the exception of Major Victor Kugel, who was called to a separation point for release from the Army. In his stead, a paper on "Patent Ductus Arteriosus" was presented by Dr. William C. Stewart, of Charleston.

The scientific work committee had arranged a well balanced program, and there was an expression of general approval from doctors who attended the sessions. It is doubtful if a better scientific program has ever been arranged at any meeting in the past.

Interesting Exhibits

The scientific and technical exhibits were probably the best that have ever been offered. While the space for scientific exhibits was limited, interesting exhibits were displayed under the supervision of Dr. Hu C. Myers and Dr. Chauncey B. Wright. Dr. C. C. Fenton, of Morgantown, the third member of the committee, was ill and could not be present.

Technical exhibits had all of their old-time, prewar attractiveness. Colorful plastic booths were used in many instances and modern drugs, appliances and equipment were displayed for the benefit of the doctors present.

At the first evening session, Dr. Andrew E. Amick, the President, was presented with the president's charm by Dr. Thomas L. Harris, immediate past president and chairman of the Council. Presentation of the charm is an annual event, but production was curtailed last year and the charm which should have been presented to Dr. Harris when he was president in 1945 was received with Dr. Amick's charm and presented to him by the latter that same evening.

Capacity audiences were present at the two night sessions. Dr. George F. Lull, secretary of the

American Medical Association, followed Dr. Amick on the Monday evening program. The following evening, the guest speakers were Governor Clarence W. Meadows and Dr. Frank H. Krusen, of the Mayo Clinic.

Annual Banquet

The annual banquet was a success from every standpoint. A complete sell-out made it necessary for a number of doctors to be served dinner in the hotel dining room. Afterwards they joined the other doctors and their wives and guests in the ballroom. Dr. Robert J. Reed, Jr., of Wheeling, served as toastmaster and presented the officers and guests. There were no formal addresses at the banquet.

During the banquet, Dr. Frank J. Holroyd offered resolutions warmly praising the Associated Press, the United Press, the Huntington Herald Dispatch, and the Huntington Advertiser for the full coverage given the proceedings. This resolution was unanimously adopted together with another thanking the members of the Cabell County Medical Society for their hospitality and many courtesies during the three-day meeting.

The entertainment featured a floor show from a local night club, with dancing during dinner, followed by the annual ball.

Golf Tournament

The golf tournament at the Guyan Country Club, under the auspices of the Junior Medical Review Society of the Cabell County Medical Society, was quite a success. Dr. Charles E. Watkins, of Oak Hill, won the trophy for the low medal score, and other prizes were awarded to participating doctors on the basis of low net scores and handicaps.

PHA ELECTS OFFICERS

The following is the list of new officers of the West Virginia Public Health Association elected at Huntington, May 4, 1946:

President, Miss Myrtle Mullins, Mullens; first vice president, Dr. Leon Dickerson, Madison; second vice president, Mr. Raymond Lyons, Morgantown; and, secretary-treasurer, Miss Annette King, Charleston.

Mr. Joe Williams, of Beckley, and Miss Ruth Barco, of Berkeley Springs, were elected members of the Board for a two-year term, and Dr. C. A. Thomas, of Romney, and Mr. Don Summers, of Princeton, members for a three-year term.

SCHERING AWARD

The Schering Corporation of Bloomfield, New Jersey, has announced the Schering Award for 1946, a competition open to undergraduate medical students, and held annually to encourage them to acquire further knowledge of various fields of endocrinology. The subject of this year's prize contest is, "The Role of Hormones in Sterility."

For the best thesis submitted on the subject an award of five hundred dollars will be given. Awards of three hundred and two hundred dollars, respectively, will be given for the second and third best papers.

MRS. DELMAS E. GREENELTCH ASSUMES PRESIDENCY OF WOMAN'S AUXILIARY

Mrs. Delmas E. Greeneltch, of Wheeling, assumed the presidency of the Woman's Auxiliary to the West Virginia State Medical Association at the 22nd annual meeting at Huntington, May 13-15, 1946. She was elected at the Clarksburg meeting in 1945, and will serve until the annual meeting in the summer of 1947.

Elective Officers

Mrs. H. E. Beard, of Huntington, was chosen president-elect and other officers were elected as follows: Mrs. W. E. Hoffman, Charleston, first vice president; Mrs. John F. McCuskey, of Clarksburg, second vice president; Mrs. L. D. Norris, of Fairmont, third vice president; and, Mrs. Thomas U. Vermillion, of Beckley, fourth vice president. Mrs. Ross P. Daniel, of Beckley, was elected treasurer, and Mrs. Dana T. Moore, of Parkersburg, was reelected recording secretary.

Appointive Officers

After her induction as president, Mrs. Greeneltch announced the following appointments: Corresponding secretary, Mrs. C. J. Holley, Wheeling; Archives, Mrs. Herbert Beddow, Charleston; Organization, Mrs. H. E. Beard, Huntington; Parliamentarian, Mrs. H. V. Thomas, Clarksburg; Finance,

Mrs. D. E. Greeneltch

Mrs. Frank Holroyd, Princeton; Publicity, Mrs. W. Paul Elkin, Charleston; Historian, Mrs. Edward Hickson, Fairmont; Program, Mrs. Sobisca S. Hall, Clarksburg; Hygeia, Mrs. Edward S. Phillips, Wheeling; Public Relations, Mrs. J. P. Lilly, Charleston; Legislation, Mrs. Ralph S. McLaughlin, Charleston; Revisions, Mrs. L. E. Shrewsbury,

Beckley; Exhibits, Mrs. Carl S. Bickel, Wheeling; Credits and Awards, Mrs. William Kalbfleisch, Wheeling; Bulletin, Mrs. H. A. Shaffer, Beckley; Speakers Bureau, Mrs. John W. Hash, Charleston.

Mrs. Ulysses G. McClure, of Charleston, presided at all of the sessions, which were attended by auxiliary members from all over West Virginia.

Mrs. G. A. Ratcliff, of Huntington, retiring treasurer, reported that the auxiliary now has more than five hundred members.

Auxiliary Luncheons

Mrs. Greeneltch was inducted as president by Mrs. W. W. Potter, of Knoxville, Tennessee, president of the Woman's Auxiliary to the Southern Medical Association. She was guest speaker at the second auxiliary luncheon held at the Governor Cabell Hotel on Wednesday, May 15. Her subject was "The Jane Todd Crawford Memorial." Col. J. E. Ash, director of the Army Institute of Pathology at Washington, D. C., was the guest speaker at the auxiliary luncheon held the previous day.

State officers and past presidents of the auxiliary were honor guests at a breakfast at the Hotel Frederick, May 14, with Mrs. A. G. Rutherford and Mrs. Walter C. Swann, of Huntington, hostesses.

Inaugural Address

In her inaugural address, Mrs. Greeneltch said that the primary reason for the existence of the Auxiliary is to advance health education. "When one considers the scope of health education," she said, "it becomes more than a trivial expression. Health education is associated with almost every project the auxiliary undertakes."

Continuing, the speaker said that "a means of simplifying health education is the use of an authentic publication printed for the lay reader by the American Medical Association." She stated that Hygeia helps to disseminate health knowledge in lay terms. The speaker said that the country had need for the Auxiliary during the war and that the need is still present. "There are innumerable ways for us to help build a good world, a better world," she said. "As individuals can we not do our part to conserve food, to care for war orphans, to teach our own American youth to reach for higher standards? All these things we can do at home. We must be living examples to our youth."

"In our civic organizations," she said, "we can do much to further the aims of the Auxiliary. It is obvious that we can continue to support cancer drives, tuberculosis programs, clinics for the well and sick, and radio health programs.

"A second ambition has become paramount during the last several years, and that is the safeguarding the ideals of American medicine at all times and under all conditions. It is pressingly urgent that we, as an Auxiliary, learn more and more about medical legislation. We have speakers approved by the State Medical Association who are willing to give talks on legislation before groups. We have articles in the Journal, pamphlets published by the National Physicians Committee, and copies of proposed bills to read and study. Only by diligent effort may we acquaint ourselves with the changing panorama that confronts us in these uncertain times. However, so that we may know the background of present day trends in medical legislation, I repeat, much thought and considerable study is necessary. We should be conversant with the subject to the extent that we may intelligently discuss it both at home and with our friends and neighbors.

"All our tomorrows are an unknown quantity; let us be prepared to meet any emergency as it arises."

SECTION AND SOCIETY MEETINGS

Section and society meetings were held in connection with luncheons which were well attended during the three-day meeting of the State Medical Association at Huntington in May. Besides the election of officers, arrangements had been made for guest speakers at these luncheons.

The breakfast of the Medical College of Virginia Alumni, arranged by Mrs. Helen M. Sellers, secretary of the Alumni association, was attended by more than 40 members. The Rehabilitation Dinner on the evening of May 14, sponsored by the American Legion and under the direction of Dr. Ben I. Golden, of Elkins, featured as guest speakers top-ranking medical officers of the American Legion and the Veterans Administration.

New Officers

The following section and society officers were elected for the ensuing year:

Eye, Ear, Nose and Throat: A. C. Chandler, Charleston, chairman; K. E. Gerchow, Morgantown, secretary.

Industrial Health: J. J. Brandabur, Huntington, president; J. L. Patterson, Logan, secretary.

Internal Medicine: W. M. Sheppe, Wheeling, president; A. C. Woofter, Parkersburg, vice president; and R. M. Wylie, Huntington, secretary.

Pediatrics: Harry Baldock, Charleston, chairman; Jack Basman, Charleston, secretary.

Surgery: Thomas Bess, Keyser, chairman; Raymond M. Cunningham, Bluefield, secretary.

West Virginia Heart Association: Oscar B. Biern, Huntington, president; Ralph J. Jones, Charleston, vice president; and Ray H. Wharton, Parkersburg, secretary-treasurer.

West Virginia Obstetrical and Gynecological Society: E. J. Humphrey, Huntington, president; Harry G. Steele, Bluefield, secretary-treasurer.

COUNCIL MEETS AT HUNTINGTON

The pre-convention meeting of the Council of the West Virginia State Medical Association was held at the Prichard Hotel in Huntington, May 12, 1946, with Dr. Thomas L. Harris, the chairman, presiding.

Dr. George W. Easley and Dr. J. C. Lawson, of Williamson, appeared before the Council to discuss the status of contract or list practice doctors in organized medicine. They suggested that a special committee be set up to make a full investigation of this field for the information of the Council and the members of the Association. Dr. Amick, President of the State Medical Association, was directed to appoint a committee of five doctors engaged in contract practice, members in good

standing of the Association, for the purpose of making a thorough study of the present trend of contract practice in this state, the committee to be instructed to prepare and submit to the Council at an early date a report, with recommendations.

Honorary Members

The following doctors were elected to honorary life membership in the Association:

R. L. Hunter, Madison
A. J. Kemper, Lost Creek
B. F. Brugh, Clearwater, Florida
J. R. Vermillion, Princeton
D. B. Lepper, Bluefield

Dr. Walter E. Vest, Editor of the Journal, presented the annual report of the Publications Committee, which was approved and ordered filed.

Compensation Fee Schedule

The Executive Secretary read a letter from Mr. John C. Ward, Assistant State Compensation Commission, formally submitting to the Council a proposed revised fee schedule, effective as of July 1. The matter of the revision of fees has been given consideration for the past several months by a special committee, of which Dr. E. A. Trinkle, of Weston, is the chairman.

Following the submission of the proposed new schedule, the Council unanimously disapproved the schedule and directed the executive secretary to endeavor to arrange another conference between the Association's committee and officials of the Workmen's Compensation Fund.

Besides Dr. Harris, the meeting was attended by the following members: Dr. Andrew E. Amick, President; Dr. B. S. Brake, first vice president; Dr. T. M. Barber, Treasurer; and Drs. Guy H. Michael, R. D. Gill, N. H. Dyer, J. L. Patterson, W. P. Bittinger, J. E. Wilson, A. R. Sidell, Thomas G. Reed, E. A. Trinkle, W. C. Swann, and Mr. Charles Lively, secretary ex officio.

AMENDMENT TO BY-LAWS

The following amendment to the by-laws, sponsored by the Cabell County Medical Society and offered by Dr. O. B. Biern at the annual meeting of the House of Delegates at Huntington, May 14, 1946, was unanimously adopted:

Chapter V, Section 1. Amend the section by adding a second paragraph as follows:

"Constituent societies must be notified 90 days before an annual meeting of the West Virginia State Medical Association of any proposed legislation so that delegates may be properly instructed by their component societies."

NEW SUPERINTENDENT AT SPENCER

Dr. Charles H. Hammer, member of the staff of the State Hospital, at Columbus, Ohio, has been appointed superintendent of the Spencer State Hospital. The appointment, which is effective May 1, was made by Governor Clarence W. Meadows. Doctor Hammer succeeds Dr. A. L. Morris, who has been acting superintendent since December 1943, and who will remain on the hospital staff as an assistant superintendent.

DR. MacGREGOR HONORED

Dr. D. A. MacGregor, of Wheeling, was elected West Virginia Governor of the American College of Physicians at the annual meeting held in Philadelphia the middle of May. He succeeds Dr. Walter E. Vest, of Huntington.

DR. SHEPPE ON PROGRAM

Dr. W. M. Sheppe, of Wheeling, was the guest speaker at the 5th annual meeting of the West Virginia Dietetic Association, held at the McLure Hotel in Wheeling, May 24. His subject was "Diet in Diabetes Mellitus." The meeting was attended by officers and members of the state nutrition committee, and over 60 members of the Panhandle Home Economics Association were also present.

RELOCATIONS

Dr. Ralph U. Whipple, member of the staff at the Golden Clinic at Elkins, has moved to Rockville Centre, New York, where he has relocated for the practice of his specialty of Urology.

* * *

Dr. Donald G. Hassig, of Charleston, has relocated for the practice of his profession at Middlebourne.

* * *

Dr. F. A. Irmen, formerly of the Huntington State Hospital, has accepted a position on the medical staff at the Raleigh State Hospital, at Raleigh, North Carolina.

WILL OBSERVE SUMMER HOURS

Effective May 15, all divisions and bureaus of the State Health Department will be open from 8:30 to 4:30 o'clock weekdays, and from 8:30 to 11:30 on Saturdays. This schedule will be effective until September 29.

VETERANS CARE PROGRAM IN EFFECT

The program of the West Virginia State Medical Association for medical care of veterans was approved by the Veterans Administration April 27, effective immediately. Copies of the program and fee schedule have been mailed to the more than 725 doctors who are participating in the program.

Dr. Claude B. Smith, of Charleston, chairman of the veterans affairs committee of the Association, was notified on May 22 that the northern panhandle counties of Hancock, Brooke, Ohio and Marshall will be under the jurisdiction of the Veterans Administration regional office at Pittsburgh. Applications for authorizations for medical care of veterans residing in these four counties will be filed by participating physicians with the VA Regional Office, 107 Sixth Street, Pittsburgh 22, Pennsylvania. Doctors in the other 51 counties will continue to file applications with the Veterans Administration at Huntington.

Resolutions Adopted

The following resolutions were unanimously adopted at the Second Session of the House of Delegates in annual session at Huntington, May 14, 1946:

— 1 —

WHEREAS, Dr. James R. Bloss has for many years labored earnestly in the vineyard of the American Medical Association; and,

WHEREAS, he was fifteen years a member of the House of Delegates of that organization; and,

WHEREAS, he has served ten years on the Board of Trustees, during which time he was Chairman of the Executive Committee of the Board, and retired as Chairman of the Board; and,

WHEREAS, West Virginia has never had a President of the American Medical Association:

THEREFORE, be it resolved by the House of Delegates of the West Virginia State Medical Association, that we urge the election of Dr. Bloss as President of the American Medical Association and instruct our delegates to the American Medical Association to present his name for president elect.

— 2 —

WHEREAS, the office of West Virginia State Health Commissioner is now a political appointment, the incumbent serving at the will and pleasure of the Governor; and,

WHEREAS, technical appointments should be made upon a basis of scientific knowledge and ability:

THEREFORE, BE IT RESOLVED, that the House of Delegates of the West Virginia State Medical Association go on record as favoring the plan of placing the State Health Commissioner under the Merit System Council, with suitable standards for the selection of the Commissioner, based upon public health knowledge and scientific merit, and that sufficient funds be appropriated to pay the Commissioner a salary commensurate with salaries paid by private industry for comparable services; and,

BE IT FURTHER RESOLVED, that copies of this resolution be sent to Governor Clarence W. Meadows, the Interim Committee studying health and sanitation in West Virginia, the President of the Senate, the Speaker of the House of Delegates, and the President of the State Board of Control.

— 3 —

WHEREAS, the West Virginia State Medical Association has been peremptorily denied permission by the Chairman to appear before a committee of the Senate of the United States and discuss a bill before that committee; and,

WHEREAS, the bill under consideration touches not only the life and work of every member of the West Virginia State Medical Association, but bears definitely upon the health and welfare of every individual citizen of the United States; and,

WHEREAS, in a democracy, the free discussion of pending measures is a basic principle of right:

THEREFORE, BE IT RESOLVED, that the House of Delegates of the West Virginia State Medical Association go on record as protesting against such a dictatorial attitude on the part of the Chairman of the Senate Committee referred to; and,

BE IT FURTHER RESOLVED, that we send a copy of this resolution to each Senator and Representative from West Virginia in the Congress of the United States, and that they be urged to use their influence to retain for the populace of the United States the right to appear before committees considering pending legislation, either as proponents or opponents; and,

BE IT FURTHER RESOLVED, that our delegates to the American Medical Association be instructed to present this resolution to the House of Delegates of the American Medical Association for consideration.

— 4 —

WHEREAS, public health is a purchasable commodity; and,

WHEREAS, it is the aim of the U. S. Public Health Service to cover all the territory of the United States with full time health officers and health units; and,

WHEREAS, the function of the Public Health Service should be educational and preventive:

THEREFORE, BE IT RESOLVED by the House of Delegates of the West Virginia State Medical Association, that we go on record as favoring the covering of the entire State of West Virginia with full time health units as soon as is practicable; and,

BE IT FURTHER RESOLVED, that we urge upon the State Health Department that the activities of the local units be limited to educational and preventive activities; and,

BE IT FURTHER RESOLVED, that copies of this resolution be sent to the State Health Commissioner and to the West Virginia Public Health Council.

— 5 —

WHEREAS, the service to the insane wards of the state of West Virginia now is deplorable because of the fact that not enough money has been appropriated to furnish satisfactory service; and,

WHEREAS, the patients in the state mental hospitals deserve the best that can be given them; and,

WHEREAS, many of them can be rehabilitated and restored to useful citizenship:

THEREFORE, BE IT RESOLVED by the House of Delegates of the West Virginia State Medical Association, that we urge upon the Legislature of West Virginia the necessity for appropriations for

the mental hospitals sufficient to pay the salaries of satisfactory medical and attendant personnel and to furnish suitable care otherwise for these patients; and,

BE IT FURTHER RESOLVED, that a copy of these resolutions be sent to Governor Clarence W. Meadows, to the Interim Committee, to the President of the Senate, the Speaker of the House of Delegates, the President of the State Board of Control, and the State Health Commissioner, and that these officials be urged to take such steps as they deem wise to secure satisfactory appropriations by the next Legislature to meet the needs outlined in this resolution.

— 6 —

WHEREAS, the recent extraordinary session of the West Virginia Legislature enacted legislation providing for non-profit hospital and medical care plans in West Virginia without an advisory committee; and,

WHEREAS, the time will probably come when the State Auditor will feel the need of consultation with the medical profession:

THEREFORE, BE IT RESOLVED, that all of the facilities of the West Virginia State Medical Association be placed at the disposal of the State Auditor if and when he should need information or advice that the State Association can furnish; and,

BE IT FURTHER RESOLVED, that copies of this resolution be sent to Mr. Edgar B. Sims, Auditor, and Mr. Harlan Justice, Deputy Insurance Commissioner.

— 7 —

WHEREAS, there has been introduced into the Congress of the United States a bill popularly called the Wagner-Murray-Dingell Bill—S.1606; and,

WHEREAS, that portion of the bill designated as Title II, if enacted into law, would disturb the time-honored physician-patient relationship in that it would bring a third party—a governmental agency—between physician and patient, and would tend to publicize diagnoses by making them public records; and,

WHEREAS, it could not help but disturb the freedom of choice of physician; and,

WHEREAS, it would tend to depress individual initiative and effort on the part of the members of the medical profession; and,

WHEREAS, it would tend to reduce a great profession to the level of "clock watchers"; and,

WHEREAS, the enactment of any system of governmental sickness insurance necessarily imposes upon the already overworked physician an enormous burden of paper work; and,

WHEREAS, compulsory sickness insurance would increase enormously the bulk of trivial and unnecessary medicine without benefit to either doctor or patient; and,

WHEREAS, the adoption of such a system could only result in deterioration of medical service to the great detriment of the populace generally; and,

WHEREAS, it would shackle and ultimately hamstring medical progress; and

WHEREAS, in effect it would be essentially a gross income tax weighing most heavily upon that segment of the population least able to bear such an added tax burden; and,

WHEREAS, such a law is socialistic in spirit, not to say communistic; and,

WHEREAS, it would force countless thousands of American citizens to adopt paternalistic medicine whether they would or not; and,

WHEREAS, the spirit in which the bill is being urged is that of a dictatorship as is evidenced by the fact that the chairman of the Senate Committee considering the bill denied the West Virginia State Medical Association the privilege of sending representatives to appear at the hearing and be heard against the bill:

THEREFORE, BE IT RESOLVED by the House of Delegates of the West Virginia State Medical Association: That we go on record as unalterably opposing the passage of Title II; and,

BE IT FURTHER RESOLVED, That we condemn the action of the Chairman of the Senate Committee in denying our representatives the right to be heard upon pending legislation, a right and privilege long taken for granted in a democracy; and,

BE IT FURTHER RESOLVED, That copies of this resolution be sent to each of our representatives in the Congress, both Senate and House of Representatives, and that each of them be urged to use his influence to defeat Title II and to restore to Americans the right to be heard on pending legislation either as proponents or opponents; and,

BE IT FURTHER RESOLVED, That we offer space in the West Virginia Medical Journal to each of our representatives in Congress, both Senate and House of Representatives, to present his opinions upon this or any other proposed legislation at any time, now or in the future; and,

BE IT FURTHER RESOLVED, That copies of this resolution be given the press.

ICS TO MEET IN OCTOBER

More than 2000 surgeons and other doctors of medicine are expected to attend the three-day Assembly of the United States Chapter, International College of Surgeons in the Masonic Temple at Detroit, October 21-22-23.

Among the principal speakers to be heard will be Mr. Hamilton Bailey of London, England, and Dr. Wayne W. Babcock of Philadelphia, and many other leading surgeons of the United States.

Dr. Herbert Acuff, of Knoxville, Tennessee, is president and Dr. Custis Lee Hall, of Washington, D. C., is president elect of the United States Chapter. Detailed information and copy of the Program may be obtained by writing L. J. Gariepy, M. D., 16401 Grand River Avenue, Detroit 27, Michigan.

Committee Reports*

REPORT OF THE EXECUTIVE SECRETARY

The end of the war brought many new problems which have had to be met and solved by the medical profession here in West Virginia. The welcome return of so many of our members who have seen long service with our armed forces added new problems to the housing situation which was already acute.

While some of our returning medical veterans have fortunately gotten satisfactorily located in offices and homes, many have not yet succeeded in finding even temporary quarters. Quite a few civilian doctors are sharing their offices with these veterans, but the lack of office space and houses is still a very serious problem in nearly all of the larger cities of the state. We have tried in every way possible to aid these veterans to become reestablished in offices and homes, but our efforts have not met with any marked success, and it is apparent that there will be no great improvement in this situation until building materials become available for the construction of new homes and office buildings.

To the approximately 65 members remaining in the service at this date, we are rendering every service possible. All inquiries are answered promptly and the Journal and bulletins of the State Medical Association are being mailed to them regularly. It is our hope that most of our members still in service will have returned to their homes by early fall.

Membership Statistics

There has been a slight decline in membership during the past year. While the net loss is but 6 members, the fact still remains that our gains in membership do not offset our losses by death and relocation. During the year there has been a loss of 21 by death and 31 by relocation outside of the state. On the other hand, there has been a gain of 46 new members during the past year.

As of this date (May 11, 1946), the membership totals 1,302. This compares with 1,308 for the same period last year. Of the total number, 80 are honorary members. All but 67 of the 332 members who served in the armed forces have returned to civilian practice.

All but 16 members have paid their 1946 dues. The effective work and close cooperation of treasurers and secretaries of component societies with this office is responsible for this very fine record.

Membership by Societies

The membership by county societies as of May 11 is as follows:

B-R-T	45
Boone	12
Brooke	9
Cabell	137
Central W. Va.	50
Doddridge	2
Eastern Panhandle	26
Fayette	48
Greenbrier Valley	22
Hancock	22
Harrison	85
Kanawha	220
Logan	38
Marion	56
Marshall	18
Mason	6
McDowell	62
Mercer	54
Mingo	24
Monongalia	50
Ohio	95
Parkersburg Academy	74
Potomac Valley	25
Preston	20
Raleigh	65
Summers	8
Taylor	6
Wetzel	10
Wyoming	13

1946 Honor Roll

The following component societies are on the 1946 honor roll, having reported a one hundred per cent payment of dues by members:

Barbour-Randolph Tucker
Boone
Brooke
Cabell
Central West Virginia
Doddridge
Eastern Panhandle
Greenbrier Valley
Hancock
Logan
Marion
Marshall
Mason
Mercer
Mingo
Monongalia
Ohio
Potomac Valley
Raleigh
Summers
Taylor
Wetzel
Wyoming.

Several new Association committees have been very active during the past year. The Committee on Relocation and Reestablishment of Returning Medical Veterans, the doctor group composing part of the legislative committee studying public health problems, the psychiatric committee, the committee on revision of Workmen's Compensation fees, and the committee on veterans affairs have had numerous meetings and the headquarters staff has devoted a great deal of time to the work incident to the development of the programs initiated by these committees.

The end of the war resulted in the removal for the most part of the limit on the use of newsprint, and it was possible to add many additional pages of text and advertising to the West Virginia Medical Journal. Color advertising, which was a novelty but a few months ago, is now an accepted part of the improved advertising section of the Journal.

*Other committee reports were published in the May, 1946, issue of the Journal.

The Publication Committee continues to do everything possible to obtain and clear for publication scientific papers of interest to all of our members generally.

In the way of public relations, many speaking engagements have been filled in various parts of the state during the past year. Usually the subject of these discussions has been the latest version of the Wagner-Murray-Dingell bill. Appearances have been made before professional and lay groups, with official visits being made to component societies and auxiliaries. The fight against the bill has been carried to the people generally. In this fight, we have been joined by officers and members of the Association and component societies, and every effort has been made to enlist the support of the lay public.

In all of the work undertaken by the members of our staff, we have had the full support of officers, councillors, and members of the Association and auxiliary generally. To these and to all members who have in any way contributed to the accomplishments of the past twelve months, I extend sincere thanks. There is much work ahead of the Association during the coming year, and I am certain that we will have the cooperation and support of our officers and members, as in the past.

Respectfully submitted,
CHARLES LIVELY,
Executive Secretary.

* * *

COMMITTEE ON PRESIDENT'S ADDRESS

We have just listened to an excellent and timely presidential address. This committee feels that the President should be highly commended for his appreciation of the conditions confronting our profession in this crucial period.

His manner of presentation of the subject is evidence of the careful and serious thought he has given to the various phases of present day medical problems. The committee further wishes to commend the president for the very able and courageous manner in which these vital and perhaps controversial topics were presented.

The committee feels that particular comment regarding certain points which were stressed in the President's address should be emphasized and are in order for further discussion by the association.

The committee especially wishes to refer to the suggested changes in the Medical Practice Act, particularly the suggestions relating to the licensure of physicians in accordance with their declared qualifications. We must consider the possibility of difficulty in interstate reciprocity which might follow any marked change in our present standards of medical licensure.

The committee also concurs in the thought expressed regarding the need for better medical care of our indigent and the development of improved medical services in our rural communities. These services should be rendered under the direct control of the state and counties.

Respectfully submitted,
BERT BRADFORD, JR., M. D.,
Chairman,
E. J. VAN LIERE, M. D.
JAMES KLUMPP, M. D.

May 14, 1946

VETERANS AFFAIRS COMMITTEE

In January, 1946, following the appointment of a subcommittee composed of Dr. Thomas L. Harris and the Chairman, a conference was held with Dr. J. C. Harding, now Deputy Medical Director of the Veterans Administration in Washington, at which time the requirements of the Veterans Administration were outlined and a plan discussed.

Following this, a meeting of the committee was held in Charleston and a tentative fee schedule and further details of the plan discussed. The entire proposal was then presented to the council of the West Virginia State Medical Association and unanimously adopted. At a meeting subsequently held with representatives of the Veterans Administration at Washington, the proposal was modified to eliminate a Medical Association monopoly and non-service connected treatment for female veterans.

You have been advised by letter of the other details of the plan and fee schedule and they need not be repeated. It is to be emphasized that treatment is only possible for service-connected or service-aggravated conditions for which care the physician files a request for authorization with the Veterans Administration in Huntington. Secondly, examinations for disability ratings must be requested by the veteran himself through the Veterans Administration in Huntington.

It is realized that there are probably numerous features which are not thoroughly covered. Although the proposal for private medical care of veterans is new to both the Veterans Administration and private practitioners, with your cooperation a satisfactory workable plan, satisfactory to the patient and his family, to the private practitioner, and to the Veterans Administration, can ultimately be achieved. Without your cooperation, the entire idea is destined to fail in every respect.

The Committee realizes that this plan can be interpreted as, and probably is, a further socialization of medical practice. It is, however, without precedent, and so far, without political blemish. and, therefore, possible of direction by organized medicine. For these reasons, if for no other, the Committee believes that the program merits the support of the State Medical Association.

The Medical Division of the Veterans Administration has been wholeheartedly cooperative in these efforts and deserves our thanks and appreciation.

The Committee wishes to acknowledge with thanks the invaluable technical assistance of the Executive Secretary of the West Virginia State Medical Association and his staff.

Respectfully submitted,

CLAUDE B. SMITH, M. D.,
Chairman,
THOMAS L. HARRIS, M. D.
RALPH J. JONES, JR., M. D.
CECIL O. POST, M. D.
FRANCIS A. SCOTT, M. D.

NECROLOGY REPORT

The following is a list of West Virginia doctors whose deaths during the past year have been reported to the West Virginia State Medical Association:

Gilbert A. Daniel, Belle ..... April 21, 1945
Harry M. Campbell, Parkersburg ..... May 13, 1945
Wm. Bernard Phillips, Gary ..... May 20, 1945
Walter Edward Bundy, Oak Hill ..... June 4, 1945
Ford Huff, Parsons ..... June 6, 1945
Martin Frank Wright, Burlington ..... June 21, 1945
Daniel P. Kessler, Weston ..... July 30, 1945
Dana Lawrence Cavendish, Fayetteville August 3, 1945
Dorsey McNeelas Ryan, Charleston ... September 19, 1945
Edward Thomas Wade Hall, Weston ..... October 7, 1945
Alfred Charles Taylor, Mona ..... October 25, 1945
Charles Alphons Wingerter, Wheeling ... November 2, 1945
Alfred M. Black, Charleston ..... December 8, 1945
Henry Dickinson Causey, Fairmont ... December 12, 1945
Commodore Marvin Kimble, Paden City ..... December 14, 1945
George Shaver Gochenour, Moorefield December 17, 1945
Floyd F. Farnsworth, Milton ..... January 2, 1946
James O. Howells, Bridgeport, Ohio ..... January 4, 1946
Eugene Davis, Charleston ..... January 14, 1946
DeLaniel Lee Yost, Fairmont ..... January 17, 1946
Ozion Price Wilson, Moundsville ..... February 16, 1946
Henry Price Wilson, Moundsville ..... February 16, 1946
Henry Sanford Yost, Fairmont ..... February 17, 1946
Henry Evans Baum, Charleston ..... March 10, 1946
George Hustead Brownfield, Fairmont ... March 21, 1946
Daniel James Rudasill, Kingwood ..... March 29, 1946
Robert Wylie Corbitt, Parkersburg ..... April 11, 1946
Welch England, Parkersburg ..... April 29, 1946
Edwin R. Nelson, Logan ..... Death in 1944, on board Japanese prisoner ship, reported in 1945.
Mark Sutphin, Logan ..... May 7, 1946
Alva Londas Parsons, Putney ..... May 8, 1946

REQUIESCANT IN PACE.

Respectfully submitted,

HARRY G. STEELE, M. D., Chairman,
JAMES R. BLOSS, M. D.
ROY BEN MILLER, M. D.
R. J. REED, M. D.
JAMES McCLUNG, M. D.
T. JUD McBEE, M. D.

* * *

COMMITTEE ON CHILD WELFARE

The Committee on Child Welfare invites attention to the circumstance that in the State of West Virginia there are essentially no facilities available for the institutional care of children presenting mental disorders, contagious disease or chronic pulmonary and cardiac diseases. Attention is further invited to the subminimal facilities for providing pediatric care for the children of medically indigent persons.

It is the opinion of this committee that national legislation now pending before congress does not constitute a satisfactory solution of these problems. We do not approve of the methods proposed in this legislation and feel in many respects that it is not in the best interests of the public or of the medical profession.

No adequate responsible study has been made in this state or in any other state to determine what is needed to correct these existing deficiencies. However, the American Academy of Pediatrics is conducting such a survey.

Until such a study is completed it is the opinion of this committee that the enactment of any legislation, national or state, in regard to these matters should be postponed.

This committee therefore recommends that the House of Delegates of the West Virginia State Medical Association go on record as being opposed to the passage of this legislation until such time as it is possible to base the same upon the findings of this survey.

This committee further recommends that the Child Health Study sponsored and conducted by the American Academy of Pediatrics be endorsed by the West Virginia State Medical Association and receive the support and cooperation of every member.

Respectfully submitted,

HENRIETTA MARQUIS, M. D., Chairman,
RAYMOND SLOAN, M. D.
CARL E. JOHNSON, M. D.
RUSSELL BOND, M. D.
HARLOW CONNELL, M. D.
A. A. SHAWKEY, M. D.
THERESA O. SNAITH, M. D.

* * *

COMMITTEE ON SYPHILIS

The Syphilis Committee met in the offices of Dr. C. A. Hoffman at Huntington, May 12, 1946. Members present were Dr. Howard T. Phillips, Chairman, and Drs. H. M. Escue and C. A. Hoffman. Dr. John C. Hume, Acting Director of the Bureau of Venereal Disease Control of the State Health Department, was present representing Dr. J. E. Offner. Also in attendance were Dr. Baer of Huntington and Drs. Easley and Lawson of Williamson.

On the basis of the discussions at this meeting, the Committee wishes to report the following recommendations and observations:

1. Due to recent changes in the diagnosis and especially treatment of venereal diseases, as well as in the methods of their control, it has become almost impossible to consider one venereal disease to the exclusion of the others. Therefore, this committee would like to recommend that its name be changed from the Syphilis Committee to the Venereal Disease Committee.

2. It is also recommended that the Bureau of Venereal Disease Control of the State Health Department survey the venereal disease clinics of the State to determine the economic status of the patients now under treatment therein, and more particularly to establish what percentage of these patients have an income sufficient to pay for adequate private care.

3. Reiterating previous similar recommendations, the physicians of the State should cooperate with their local health departments in reporting their venereal disease cases. In addition to the reporting of cases, those patients who lapse from treatment before infectiousness is controlled should be reported so that the health departments can follow them up and return them to treatment. This is required by the laws of the state and is in the interest of better community health. Every

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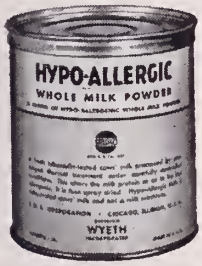

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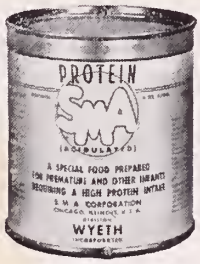

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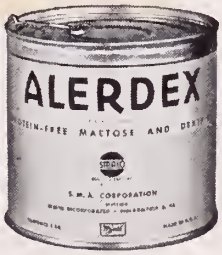

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effort should be made to secure better cooperation between physicians and health departments to this end.

4. In the light of recent advances in the knowledge of the management of syphilis it is felt that much more emphasis should be placed on the securing of titered serologic tests for syphilis. This is particularly true in the post-treatment observation of patients receiving intensive therapy, in the diagnosis of congenital syphilis in infants, and in establishing a diagnosis in questionable cases. It is recommended that qualified laboratories performing serologic tests for syphilis make this service available when possible.

5. The Committee wishes to commend the physicians of the state for their fine cooperation in carrying out the provisions of the prenatal law. The success of this program during the first year of its operation is an excellent commentary on the medical and social vision of the medical profession of the state. It is hoped that they will continue to show this same excellent spirit. In line with this, the Committee also wishes to emphasize the fact that serologic tests should be performed on each pregnant woman during the first few months of gestation since, by establishing a diagnosis of syphilis early in pregnancy and instituting therapy at once, congenital syphilis can be prevented in nearly all cases.

6. Endorsement is given by the Committee to the program of distribution of the tabloid publication of the American Social Hygiene Association, "You and Your Health." This distribution is being sponsored by the Bureau of Venereal Disease Control of the State Health Department. The paper contains factually correct information relative to the venereal diseases suitable for lay consumption.

7. The State Health Department, through the Bureau of Venereal Disease Control, is about to institute a program wherein private physicians will be paid for the diagnosis and referral to the Kanawha Valley Medical Center of cases of primary and secondary syphilis. This will be instituted county by county after clearing with local medical societies. The Committee is in hearty accord with this program, the details of which will be discussed with each of the local medical societies. It will infringe in no way upon the prerogatives of the practicing physician, will promote the control of venereal diseases, and provide payment for much work which is now being done gratis by the physicians of the state. For these reasons, it is hoped that favorable consideration of the program will be given by the medical societies as they are approached concerning the matter.

8. Finally, it is strongly urged that the Public Health Council take steps to have each laboratory in the state provide weekly lists to the Bureau of Venereal Disease Control of the State Health Department. On these lists should appear the following information concerning positive laboratory examinations for venereal diseases:

(a) The name of the patient;
(b) The disease for which the examination was positive; and
(c) The name and address of the physician.

This procedure would mean that many more patients with infectious venereal diseases would be placed under treatment and would secure much more complete reporting of venereal diseases. All investigations by the Health Department would be made through and with the consent of the physicians. In cases already reported, no investigation would be inaugurated. Under this system the physician would have the option of reporting cases by name directly to the Bureau of Venereal Disease Control which would automatically preclude the origination of a report to and investigation by local agencies, thus doubly assuring privacy to the patient. It is also hoped that the laboratories of the state will cooperate with the Public Health Council in making this possible.

Respectfully submitted,

HOWARD T. PHILLIPS, M. D.,
Chairman.

* * *

COMMITTEE ON TUBERCULOSIS

In this, the annual report of the Tuberculosis Committee of the West Virginia State Medical Association, we beg leave to submit certain recommendations with reference to the operation of sanatoria and the treatment and control of tuberculosis in West Virginia. This report may be divided into three parts: A. Pre-Sanatorium Phase; B. Sanatorium Phase; and, C. Post-Sanatorium Phase.

Pre-Sanatorium Phase

We believe that an attempt should be made within the next 5 to 10 years to x-ray the entire population of the state, especially adults. The number of mobile x-ray units must be increased if this is to be accomplished. The cost of such a program could be met by an increase in appropriations and federal funds available for that purpose. We believe that the state program and county programs should be controlled by the state health department and the county health officers respectively. An intensive health education campaign to be conducted by the state health department is most desirable, and the department should maintain a registry of all cases of tuberculosis in the state.

Undoubtedly a quarantine law is needed by recalcitrant tuberculous cases, especially those which, in the judgment of the state health department, are considered a menace to public health.

The facilities of the state hygienic laboratory should be expanded to meet the increased volume of sputum examinations.

All the tuberculosis work in the county should be under the supervision of the county health officer who should be provided with adequate office and field personnel, and this officer should arrange for x-ray surveys and clinics and should maintain in his county a registry of tuberculosis cases. There should be close cooperation between the local medical society and the county health officer, who should be regarded as a specialist in matters of public health.

The county health officer should have the power to pass finally upon an application of a person with

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CLINIC STAFF

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Clinical Pathology:
E. E. MYERS, M. D.

Surgery:
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LEWELL S. KING, M. D.
GLENN ASHWORTH, M. D.
G. G. SADDLER, M. D.
W. E. KING, M. D.

Urology:
J. EVERETT SANNER, M. D.

Gynecology and Obstetrics:
EDNA MYERS JEFFREYS, M. D.

Ophthalmology:
J. W. MYERS, M. D.

•

Pharmacist:
F. MERCEDES DURANT, B. S. Phar., R. P.

Director of Nursing Service:
MARY R. CHAFFEY, R. N.

Assistant Director of Clinical Laboratories:
GORDEN S. STARKEY, B. S.

Chief Laboratory Technician:
THELMA McCAULEY

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R. R. RATCLIFFE, R. T.

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E. R. DENNISON

•

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tuberculosis for permission to remain at home for treatment. If, from the standpoint of communicability the health officer feels that the patient is a menace to those whom he contacts, then the patient should be required to enter a sanatorium.

The state and county tuberculosis and health associations should work in close harmony with the health department and the county health officer and extend such aid to them as may be possible in the various phases of the treatment of tuberculosis, especially those of case findings, health education, and the enactment of necessary legislation.

Sanatorium Phase

It is felt that the present budget of less than $3.00 per patient per day does not permit adequate and comprehensive care and that an amount comparable to that paid in similar institutions elsewhere should be agreed upon. In no case should this amount be less than $4.00 per day. We believe that beds should be free in the three sanatoria in this state. Since the required collection of $1.00 per patient per day represents only about one-third of the cost and since less than one-third of the patients are able to pay it, we believe that the entire amount should be paid from state appropriations.

An adult rehabilitation program should be instituted in the sanatoria. Many patients who have not had complete grade school education must never return to heavy manual labor, therefore adequate education is essential in proper rehabilitation. This program should be carried out in collaboration with the Division of Vocational Rehabilitation of the State Department of Education.

It is recommended that a 400-bed hospital for tuberculosis patients be built at Morgantown as outlined by Dr. David Salkin and Dr. Myron Miller of the USPHS. In addition, a 200-bed hospital for colored patients should be constructed near Beckley so that the surgical and medical staffs at Pinecrest Sanitarium could supply services when needed. We believe that the present isolated situation of Denmar Sanatorium precludes adequate medical and surgical care.

Post-Sanatorium Phase

The state and county health departments should arrange for adequate follow-up of patients and for pneumothorax clinics.

An intensification of the rehabilitation program under the supervision of both the health officer and the Department of Education is badly needed, and we believe that the West Virginia Tuberculosis and Health Association should cooperate in this program.

It is important that a list of physicians approved by the state health department for the purpose of administering follow-up pneumothorax should be

sent to every physician in the state. This is necessary because the sanatorium must refer the patient back to the local physician who should be permitted to refer the patient to an approved doctor for such follow-up pneumothorax. The Sanatorium is essentially a consultant to the private physician after the patient has been discharged.

Miscellaneous

We believe that the employees of the sanatoria should receive adequate salaries; that they should be provided with satisfactory living quarters; and that they should be placed under some form of a merit system. Politics should be eliminated from all sanatoria. At the present time there is need for a medical social service program in the sanatoria.

These recommendations and suggestions are made as the result of a meeting of the Tuberculosis Committee recently held at Clarksburg.

Respectfully submitted,

DAVID SALKIN, M. D.,
Chairman,
E. T. GOFF, M. D.
G. E. GWINN, M. D.
S. E. McFETRIDGE, M. D.
J. N. REEVES, M. D.

Doctors in the Service

Lt. Comdr. R. U. Drinkard, of Wheeling, has been released from military service and returned to civilian practice with offices in the Central Union Building.

* * *

Capt. William Perilman, of Wheeling, has been released from military service, and has offices at 35 Eleventh Street, in that city.

* * *

Major Otis G. King, of Bluefield, who has served as chief of reconditioning service at the Woodrow Wilson General Hospital, at Staunton, Virginia, since 1944, has been released from military service and has resumed practice as a member of the staff at St. Luke's Hospital, in Bluefield.

Major King had supervision of the physical therapy, occupational therapy, physical reconditioning and educational reconditioning departments at Woodrow Wilson General Hospital. Previous to this service, he was chief of the Officers' and women's sections of the State Hospital at Fort

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840 NORTH NELSON ROAD
R. A. KIDD, JR., M. D., *Associate*
TELEPHONE FA. 1315

Eustis, Virginia. While he has been on terminal leave, Major King has been taking special work at the University Hospital, at Ann Arbor, Michigan.

* * *

Major Mendel W. Smith (MC), formerly of McDowell County, has been released from military service and is now located at Biloxi, Mississippi.

* * *

Commander V. T. Churchman, Jr., who returned from military service several weeks ago, has offices in the Knight Building at Charleston, where he is engaged in the practice of his specialty of E. E. N. T.

* * *

Major Robert C. Bock (MC), of Charleston, has been released from military service and has resumed the practice of his specialty of surgery, with offices at 414 Professional Building, in that city. Previous to his service in the army, he was on the staff at the Louisville General Hospital, in Louisville.

* * *

Major Francis L. Coffey, who has served with the armed forces over three years, has been released from military service and resumed practice in Huntington. Major Coffey served more than two years at the Valley Forge Hospital near Phoenixville, Pennsylvania and, later, as chief of orthopedic and reconstructive surgery at the Deshon General Hospital, at Butler, Pennsylvania.

* * *

Lt. (j.g.) John T. Jarrett, USNR, of Charleston, recently returned from military service, is now associated in the practice of medicine and surgery with Dr. Joseph E. Rucker, at 308 Bank of Commerce Building, in Charleston.

* * *

Dr. Louis Y. Peskoe, formerly of Boomer, who was recently released from the army with the rank of Captain, has accepted a two-year residency in internal medicine at Nichols General Hospital in Louisville.

* * *

Dr. L. Rush Lambert, of Fairmont, who has served as medical officer at State Selective Service headquarters at Charleston for nearly six years, is now on terminal leave from the army medical corps. Doctor Lambert, who was recently promoted to the rank of Colonel, will resume practice at Fairmont in the near future.

Colonel Lambert's duties have been taken over by Major Thomas L. Dittmer, (MC), of Columbus, medical officer for the Fifth Service Command.

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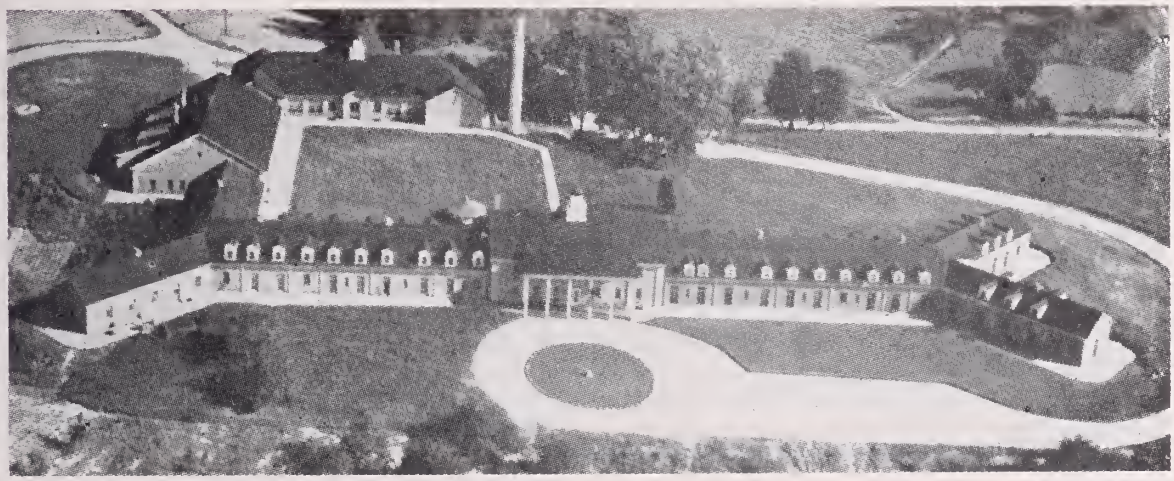

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Obituaries

WELCH ENGLAND, M. D.

Dr. Welch England, 44, of Parkersburg. died suddenly at his home in that city, April 29, 1946, as a result of a heart attack. He had not previously been ill.

Doctor England was born at Lindside, West Virginia, and received a B. S. degree from West Virginia University in 1924, and graduated with the degree of M. D. at the University of Maryland School of Medicine in 1926. He interned at University Hospital in Baltimore in 1927, and was licensed to practice in West Virginia that same year. He took postgraduate work in Ophthalmology and Otolaryngology at the University of Pennsylvania School of Medicine, 1931-32, since which time he had practiced his specialty in Parkersburg. He had previously been located in Clarksburg, where he was a member of the Harrison County Medical Society.

Doctor England was a member of the American Academy of Ophthalmologists; a diplomate of the American Board of Otolaryngologists; a fellow of the American College of Surgeons; Senior Fellow of the Southeastern Surgical Congress; and a member of the Military Surgeons Association. He was also a member of the Academy of Medicine of Parkersburg, of which organization he had served as secretary and president. He was a member of the West Virginia State Medical Association, the Southern Medical Association and the American Medical Association, and had served as a councillor of the State Medical Association.

In 1942, Doctor England was commissioned in the medical corps of the army, serving until late in 1945 when he was honorably discharged with the rank of lieutenant colonel. He was last stationed at the Woodrow Wilson General Hospital, at Staunton, Virginia.

He is survived by his widow Kathryn (McClaugherty) England, one son, Welch, Jr., now a student at West Virginia University, and a daughter, Beth, of Parkersburg.

* * *

ALVAH LONDUS PARSONS, M. D.

Dr. Alvah Londus Parsons, 63, physician for the Hatfield-Campbell Creek Coal Company, died May 8, 1946, following a heart attack in his office at Putney.

Doctor Parsons was born in Jackson County, son of Emily (Barnette) Parsons and the late Dr. T. I. C. Parsons. He received his early education in the public schools at Ripley, and was graduated from the University of Kentucky Medical College.

Doctor Parsons served in the medical corps of the army in World War II, and was overseas for eighteen months. He was a member of the John Brawley Post of the American Legion. Before locating at Putney, Doctor Parsons had practiced at Ripley, Parkersburg, and Charleston.

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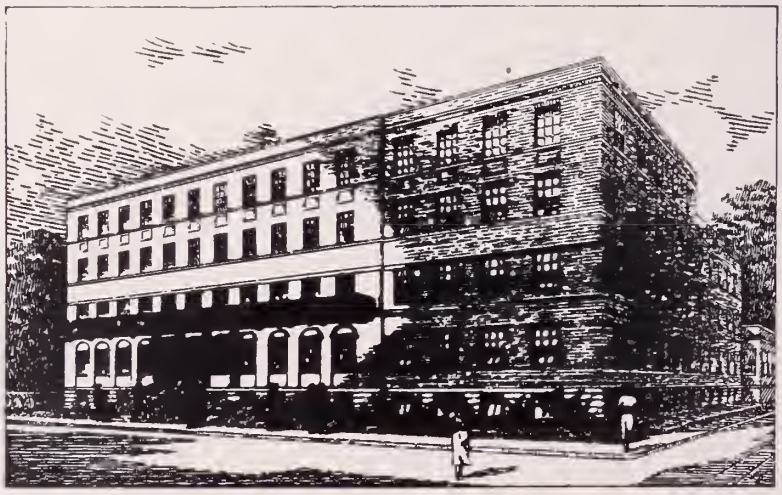

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THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII JULY, 1946 No. 7

PATENT DUCTUS ARTERIOSUS*

By WM. C. STEWART, M. D.
Charleston, West Va.

(A Report of Cases and a Review of the Literature)

Many articles dealing with the subject of patent ductus arteriosus have appeared in the literature, and great interest has been stimulated in this field since the report of the first successful ligation of a patent ductus by Gross and Hubbard[1] in 1939. Numerous instances of successfully treated cases have been reported, and several surgeons have collected imposing series of cases. The success of these operations generally has been dramatic and the surgical mortality has fallen to an encouragingly low level.

The success of surgical treatment makes it imperative that patients with a patent ductus arteriosus have the diagnosis definitely established. This can be done with accuracy if the condition is borne in mind and if its manifestations are familiar to the examiner.

The ductus arteriosus is a normal part of the fetal circulation. During intra-uterine life the output of the right ventricle passes into the pulmonary artery as usual. But since the fetal lungs are unexpanded, the pulmonary arterial tree is collapsed and not functioning. The output of the right ventricle is, therefore, conveniently returned to the major circulation through a fistulous connection, the ductus arteriosus. The ductus connects the left pulmonary artery to the aorta and joins this vessel just as it arches to begin its descent through the mediastinum.

Normally, the ductus arteriosus closes at birth and ceases to function. However, it often persists for several days and may not close until the third year of life. Spontaneous closure after this age is not to be expected. The patent or persistent ductus varies greatly in size and form. It may be a centimeter in length and as much in diameter. Often it is very short and the aorta and pulmonary artery are joined by a fistulous opening and no duct is present. The ductus, at times, is so small that a probe is passed through it with difficulty. The opening of the duct into the aorta is always larger than its opening into the pulmonary artery, thus giving it a funnel-shaped appearance. The wall of the duct is often as thin as paper and easily torn during surgery, causing disastrous hemorrhage.

Patent ductus arteriosus is a fairly common congenital vascular lesion. In 1,000 cases of congenital heart disease Abbott[2] found 92 cases of simple patent ductus arteriosus. In the author's personal records there are 33 cases of congenital heart disease, in 5 of which there is a patent ductus. Therefore, it is probably safe to say that 10 to 15 per cent of cases of congenital heart disease are represented by cases of patent ductus arteriosus. Keys and Shapiro[3] have calculated that there are about 20,000 cases of patent ductus arteriosus in this country today. One may assume that any community has its proportionate share of these cases and in all fairness to those suffering from such a condition, they should be sought out and appropriate treatment instituted.

CASE REPORTS

Case 1.—J. F. G., a 9 months old infant was first seen on May 21, 1945. A heart murmur had been noted at the age of 5 months. The baby had gained

*Presented before the 79th Annual Meeting of the West Virginia State Medical Association at Huntington, May 15, 1946.

weight normally until the age of 5 months, but subsequently had gained very slowly. No cyanosis had been noted until the present illness when there was questionable cyanosis on exertion. A peculiar grunting type of respiration was present and there was some apparent dyspnea on effort. There had been no significant infections. There was definite evidence of rickets. There had been chronic constipation.

Physical examination showed the patient to be thin and undernourished. There was no cyanosis at any time during the examination. The heart size could not be definitely determined. The rhythm was regular; the rate 120. There was a rough systolic murmur heard close to the left border of the sternum at the third interspace. A softer diastolic murmur was heard close to the sternum just below this point. A thrill was felt associated with the systolic murmur. Both murmurs could be heard in the left side in back and had a machinery-like continuous quality. The lungs were clear and the liver could be felt.

Roentgenologic examination showed a generalized cardiac enlargement without any selective involvement of either ventricle. The pulmonary conus was not unusual.

Follow-up.—The child was seen Sept. 10, 1945 and Nov. 5, 1945 at the age of 13 months and 15 months respectively. He had grown fairly normally. He was walking with help. He had no cyanosis. The murmurs were unchanged, except that they were now heard best at the pulmonic area.

The child was sent to Dr. Helen B. Taussig at the Johns Hopkins Hospital Dec. 9, 1945, for diagnosis and consideration of the advisability of surgical treatment. Dr. Taussig reported, in part, as follows: "Diagnosis is not clear. I think, but I am not certain, that the child has a patent ductus arteriosus. The differential diagnosis lies between an interauricular septal defect and a patent ductus arteriosus. As far as treatment is concerned, I would be conservative. The child is remarkably well nourished and well developed and I would not think of operating unless his condition was critical which it is not. His prognosis is infinitely better than most people think."

Case 2.—Mrs. M. H., a 21 year old housewife, was first seen August 25, 1944. Eighteen hours previously she had experienced severe pain at the apex of her heart, made worse by breathing or coughing. She stated that recently she had been tired all the time and that she had moderate dyspnea on exertion. She had not had rheumatic fever or chorea, but had had a 'leaking heart valve' since childhood. She had never been cyanotic. She had a child two years old and had had no particular trouble during the pregnancy.

Physical examination showed the patient to be well developed and well nourished and with good color. The arterial pulsations in the neck were prominent and the pulse was Corrigan in type. The blood pressure was 120 systolic and 40 diastolic. The lungs were clear and the neck veins were not distended. The heart was normal in size, but its action was vigorous and the apical impulse forceful. The rhythm was regular but interrupted by an occasional premature beat. A to-and-fro machinery-like murmur with a rough systolic phase was heard at the pulmonic area and upward toward the clavicle. The systolic murmur was rough and was accompanied by a thrill. This murmur could be heard in the left side in back. The pulmonary second sound was not unusual.

Follow-up.—Further studies on this patient were not possible and she has not been seen subsequently. Despite her apparent good compensation, because of the low diastolic pressure, she should have surgical treatment of her patent ductus arteriosus without further delay.

Case 3.—A. H., a 22 year old salesman, was first seen August 4, 1944. He complained of pain over the right side of the chest, anteriorly. The pain was a steady ache and unrelated to breathing. He stated that he felt feverish and weak. He stated also that he had always had palpitation on exercise and knew that he had heart trouble. He had been rejected by the army because of his heart condition. He had no dyspnea on ordinary effort. He stated that if he exercised strenuously, he became nauseated. He had never been cyanotic, had never had rheumatic fever or chorea. Nine siblings were living and well and none had heart trouble.

Physical examination showed the patient to be very well developed and well nourished. His color was good. The temperature was 99 F., the pulse 92, and the respiration 20.

The lungs were clear. The heart was overactive with vigorous pulsation, but not enlarged. There was regular rhythm. There was a grade 2 apical systolic murmur. To the left of the sternum just outside the pulmonic area, there was a to-and-fro machinery-like murmur with a fairly rough systolic murmur and a soft diastolic murmur. The aortic and pulmonic second sounds were markedly

accentuated (A_2+++ and P_2+++). The blood pressure was 130 systolic and 70 diastolic. The murmur could be heard well in the back. No thrill was felt.

Roentgenologic examination showed the heart at the upper limits, and of normal size. The pulmonary conus was slightly enlarged, producing a 'mitral' configuration. An electrocardiogram showed no axis deviation and no definite variation from normal. The blood sedimentation rate was 4 mm. in one hour.

Follow-up.—On August 20, 1944, this patient was sent to the Mayo Clinic for study and decision as to the advisability of surgical intervention for the treatment of a patent ductus arteriosus. The diagnogis of patent ductus arteriosus was confirmed, but operation was not advised. Dr. A. R. Barnes recently made the following follow-up note on this case: "Since his cardiac reserve is now adequate, the cardiac silhouette not enlarged and the pulse pressure not seriously increased, and since the possibility that subacute bacterial endarteritis will develop is only a possibility, I would advise against surgical intervention at this time. In view of the recent experience in the treatment of subacute bacterial endarteritis and endocarditis with large doses of penicillin, the prospect of bringing about a cure of this condition, should it arise, is exceedingly promising and hence, the hazard of the occurrence of subacute bacterial endarteritis is much less formidable than formerly. If there is progressive loss of cardiac reserve prior to the age of thirty the question of surgical closure of the ductus would have to be considered."

Case 4.—Mrs. H. C. S., a 34 year old housewife, was first seen January 22, 1943. She stated that she had recently had a severe headache associated with vomiting, also that she had noted palpitation on exertion for years and had recently suffered mild pain over the left side of the chest, anteriorly, unassociated with exertion. There was no definite dyspnea on ordinary activity, and she had never been cyanotic. A heart condition was first noted at the age of 14 years and later in life two pregnancies had been terminated by abortion because of her heart condition.

Physical examination showed the patient to be well developed and well nourished. Her color was good. The lungs were clear and there was no distention of the neck veins. The blood pressure was 116 systolic and 88 diastolic, and the pulse was small. The heart was normal in size and was not overactive. There was regular rhythm; the rate was 84. A continuous machinery-like murmur was noted to the left of the sternum at the pulmonic area and upwards toward the clavicle. The pulmonary second sound was greatly accentuated. No thrill was felt. The systolic murmur could be heard in the back.

Roentgenologic examination showed the heart to be normal in size. The pulmonary artery was prominent. The left auricle was not enlarged.

Follow-up.—This patient continues well. In view of her normal blood pressure and good compensation she is not a suitable subject for surgical treatment.

Case 5.—Miss A. P., a 27 year old secretary, was first seen September 11, 1945. She complained of pain at the apex of the heart. She stated that the pain was aggravated at times by breathing. She complained of dyspnea on moderate exertion and thought she was more dyspneic than a year before. She stated that she noted palpitation on exertion. She had always been well. She had not had rheumatic fever or chorea. A heart murmur had been noted five years previously.

Physical examination showed the patient to be well developed and well nourished. Her weight was 109 pounds. Her color was good. The neck veins were not distended. The lungs were clear. The heart was slightly enlarged. The rhythm was regular; the rate 74. The heart sounds were normal except for a machinery-like murmur heard best just under the left clavicle and downward over the pulmonic area. The systolic murmur was rough and the diastolic murmur was soft. The systolic murmur could be heard over the left side in back. A systolic thrill was palpable over the pulmonic area. The blood pressure was 118 systolic and 60 diastolic.

Roentgenologic examination showed slight generalized cardiac enlargement. The pulmonary artery was very prominent and the left auricle was slightly enlarged. The heart action was very vigorous. Transverse diameter of the chest was 10 inches. Transverse diameter of the heart was 5.25 inches.

Follow-up.—The patient was sent to the Mayo Clinic. On December 31, 1945, she was operated upon for ligation of a patent ductus arteriosus. Dr. O. T. Claggett, who operated, made the following note in description: "The ductus was exposed. It was 1½ to 2 cm. in diameter and about ½ cm. long at the most. The line of cleavage was established under the adventitia on the aortic side. By

careful dissection I was able to get around the ductus. It was too short to consider resection, so it was triply ligated with heavy silk. The thrill disappeared completely."

This patient was seen subsequently Feb. 7, 1946 and March 19, 1946. She was doing well, had good exercise tolerance and noted no palpitation. There was no murmur and no thrill. The blood pressure was 116 systolic and 78 diastolic. Roentenologic examination showed the transverse diameter of the heart to be 5 inches, whereas before it had been 5.25 inches. The pulmonary artery was still fairly prominent, but less so than before.

The foregoing cases illustrate many of the findings in patent ductus arteriosus and the effects usually produced by the lesion. A further consideration of these effects is in order at this point.

The patent ductus arteriosus may be associated with other congenital cardiac lesions but this is not usually the case. The uncomplicated patent ductus arteriosus is tolerated very well by the heart, although it imposes a severe increase in the work of the heart, particularly the left ventricle. Eppinger, Burwell and Gross[4] took samples of blood from the aorta and pulmonary artery at the time of operation and showed that from 25 to 75 per cent of the output of the left ventricle may pass from the aorta through the patent ductus into the pulmonary artery. This greatly increases the work of the left ventricle and the excursions of this chamber are greatly increased. The shunt of blood into the pulmonary artery increases the pressure in this vessel and consequently increases the work of the right ventricle in maintaining adequate pulmonary circulation against an unaccustomed pressure. The passage of blood through the ductus arteriosus produces a typical murmur composed of a systolic phase when the rate of flow of blood through the ductus is greatest and a diastolic phase when the flow is much decreased.

The clinical picture in patent ductus arteriosus varies, depending upon the size of the ductus. Many infants having this lesion do not survive the first year of life and Hubbard[5] has reported a case in which cardiac failure developed in an infant of 11 months. It is of interest that this patient was successfully treated by ligation of the ductus. Infants and children with patent ductus arteriosus often show retarded growth and development. On the other hand, many patients grow to adult life in a normal fashion and are not apparently embarrassed by the lesion as is apparent from the cases reported. Cyanosis is never found in uncomplicated patent ductus arteriosus and, when present, indicates some other lesion in addition to the patent ductus. Palpitation is a frequent complaint and it is this symptom that has led all patients with a patent ductus arteriosus, in my experience, to suspect that they had something wrong with their hearts.

The classical physical finding on examination of these patients is the machinery-like murmur, heard best in the pulmonic area and upward toward the infraclavicular region. This murmur is almost continuous, with a fairly rough systolic phase and a softer diastolic component. The systolic murmur usually may be heard in the back but neither murmur is apt to be transmitted very widely over the precordium. A well marked thrill usually is demonstrable during the systolic phase of the murmur. Some question has arisen as to whether a patent ductus arteriosus ever produces only a systolic murmur. Hubbard[5] reports that in infants the diastolic murmur often appears late. Keys and Shapiro[3] report a case, proven by autopsy, in which no murmur was heard during the patient's life. This patient died of congestive failure and they believe that when cardiac failure develops the murmur or murmurs may disappear. Despite the above considerations, Hubbard believes that the diagnosis of patent ductus arteriosus should never be made in the absence of the typical machinery-like murmur and the best evidence available supports this belief. However, as it becomes clear that patent ductus arteriosus with bacterial endarteritis urgently requires surgical treatment, and that those cases without bacterial infection probably should have surgical treatment, the diagnosis may be made occasionally in the presence of a systolic murmur without an accompanying diastolic murmur.

A lowered diastolic blood pressure frequently is found with a patent ductus as in cases 2, 3 and 5, and is of importance in confirming the diagnosis. Hubbard[5] considers the diastolic pressure a good index of the mechanical embarrassment which the lesion is producing. Cardiac enlargement is variable, rarely is very great, and often is absent. The left ventricle is most apt to be enlarged but in some instances the right is preponderantly enlarged for reasons which are not entirely clear. The pulmonary artery is enlarged, usually, and in adults is a very distinctive finding.[6]

The electrocardiogram in cases of patent ductus arteriosus exhibits no consistent abnormality and is not helpful in the diagnosis. In cases suspected of

having congenital heart disease an electrocardiogram showing no right axis deviation is not only consistent with the diagnosis of patent ductus arteriosus, but is suggestive of this condition.

The roentgenologic examination is of great importance and may be the key to the diagnosis. The anterior, posterior and diagonal films contribute valuable information, but fluoroscopic findings may be even more significant. Dilation of the pulmonary artery is the most specific abnormality demonstrable by roentgenographic study and was present in 41 out of 50 cases examined by Donovan, Neuhauser and Sosman.[6] This abnormality causes a fullness along the left border of the heart, particularly apparent just above the region of the left auricle. The engorgement of the pulmonary vessels results in a prominent pulsation of the hilar vessels referred to as a 'hilar dance.' Cardiac enlargement is almost never great, as pointed out by Roesler,[7] but was present in 38 out of 50 cases studied by Donovan, et al.[6] Enlargement of the left auricle was found by the same investigators in 32 out of 50 cases studied. No other congenital lesion or acquired cardiac condition produces quite the same roentgenographic picture as that presented by the patent ductus arteriosus.

Before summarizing the diagnostic criteria, it may be well to point out that there are several distinct differences in the problem as presented by adults and by infants and young children. This is indicated by the difficulties encountered in case 1. The rapid heart action of infants makes the evaluation and timing of murmurs very difficult. Hubbard[5] has pointed out that the diastolic component of the machinery-like murmur may not develop until the child is several years old. Hubbard[5] also has pointed out that prominence of the pulmonary artery as shown by roentgenogram is not a consistent finding in children.

Consideration of the following points may be helpful in the diagnosis of patent ductus arteriosus: (1) the machinery-like murmur, (2) the thrill, (3) the enlarged pulmonary artery and prominent pulsation of pulmonary vessels as demonstrable by fluoroscopic examination, (4) the lowered diastolic pressure, (5) the slight cardiac enlargement, (6) the absence of cyanosis, (7) the history of a heart murmur since infancy, and (8) the normal electrocardiogram.

It is well at this point to consider the clinical course of patent ductus arteriosus and what happens in the normal course of the condition. In 92 cases studied by Abbott,[2] one-fourth of the patients died of bacterial endarteritis and one-half died of cardiac failure. The average age at death was 24 years. Keys and Shapiro[3] studied 60 cases and found subacute bacterial endarteritis as a cause of death in 41.7 per cent; 28.6 per cent died of congestive failure, and the others died of various conditions. Bullock et al[8] found in a study of 80 cases that 11 patients had died by the age of 14, one-half of the total number were dead by the age of 30, and by the age of 40, 71 per cent were dead. The causes of death in this series were approximately the same as those in the previous group of cases reported. Keys and Shapiro[3] estimate that the presence of a patent ductus arteriosus reduces the life expectancy approximately 25 years in the average case. Subacute bacterial endarteritis may develop at any age. The infection usually localizes at the pulmonary end of the ductus and develops on the congenital lesion. The process is endarteritis and not, at least primarily, endocarditis. Cardiac failure at the age of 11 months has been reported by Hubbard and may develop at any age thereafter. Cardiac failure, when it develops, is rapidly fatal and responds poorly to treatment. The final incident of failure is almost never preceded by milder bouts of congestive failure.

The indications for operation for patent ductus arteriosus still are not clear. The choice of cases for surgical treatment is made on the basis of several consideration. The first is the estimation of the danger faced by the patient unless treated by surgical intervention. Opposed to this is consideration of what can be accomplished by surgical treatment, and the risk involved.

It has been pointed out previously that these patients face two dangers, subacute bacterial endarteritis and congestive failure. Lengthy periods of cardiac invalidism are not to be expected. The life taking terminal events may, however, develop quickly and the diminished life expectancy has been previously noted. It is particularly fortunate, however, that patients in whom bacterial endarteritis has developed yet may be successfully treated, as witnessed by many such cases recently reported. The development of this type of infection is an urgent indication for surgical treatment. Touroff[9] reported 11 cases treated surgically and with chemotherapy after endarteritis developed, of which 6 cases were cured. The development of congestive failure also precipitates a serious and ominous situation. Patients, even then, may be treated successfully by surgical

intervention but the risk is great. If patients are followed closely, beginning loss of their cardiac reserve may be noted and surgical treatment carried out. Hubbard[5] has suggested that cases be classified as compensated patent ductus arteriosus and uncompensated patent ductus arteriosus. He considers that a low diastolic pressure implies a serious mechanical burden and feels that choice of cases for surgical treatment should be made upon the evidence of an uncompensated state and other evidence of particularly embarrassing mechanical lesions. It is questionable, however, if, in the average case, it is possible to delay in the choice of the most advantageous moment for surgical treatment, without permitting a few catastrophes. Hubbard[5] pointed out that the age of the patient is not a factor in deciding when to operate. Operation can be done at any age if other considerations indicate that it is necessary.

It is an established fact that successful surgical treatment of the patent ductus arteriosus produces a complete and dramatic cure of the condition. In a few instances the typical murmur and other signs have persisted after an attempt has been made at ligation, but with improved technique and certainly if section of the ductus is done, as is now recommended by Gross,[10] no recurrence or persistence of the fistula is likely. In some instances surgical treatment is impossible. Keys and Shapiro[3] reported that in 17 per cent of 60 cases terminating fatally the ductus was so short that the cases would have been inoperable. The mortality rate for early series of cases was about 10 per cent. However, Gross[11] reported but 3 deaths in his first 50 cases and his mortality experience is constantly improving. Clagett[12] of the Mayo Clinic feels that the mortality should be no more than 5 per cent in competent hands. The factors which bear upon the decision as to when to resort to surgery in the treatment of patent ductus arteriosus are tabulated below:

FACTORS OPPOSING RESORT TO SURGICAL TREATMENT

1. The patient is quite well and has very little disability.
2. The operation is a formidable one and even in the best hands carries a certain risk.
3. Surgery can be resorted to if subacute bacterial endarteritis develops or if manifestations of cardiac failure are present or impending as pointed out by Barnes in connection with case No. 3.
4. In about 15 per cent of cases the ductus is found, upon exploration, to be inoperable.

FACTORS WHICH FAVOR RESORT TO SURGICAL TREATMENT

1. The life expectancy of the patient with patent ductus arteriosus is reduced by about 25 years and only a very few live out a normal span of life.
2. Serious complications are almost certain to develop in the majority of patients sooner or later.
3. When the patient is in good condition, the mortality associated with surgical treatment is now very low, probably less than 5 per cent.
4. Operation after subacute endarteritis has developed will cure only about 50 per cent of patients and after congestive failure has developed the outlook is probably no better.

SUMMARY

Five cases of patent ductus arteriosus have been reported. One case has been treated successfully by surgical ligation elsewhere and follow-up in this case is reported. The incidence of patent ductus arteriosus has been considered and the importance of case finding pointed out in view of the excellent results of surgical treatment. Criteria for the diagnosis are listed and various factors are considered which bear upon the decision as to when surgical treatment is indicated.

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SOLVING THE PROBLEM OF THE TOXICITY OF NEW CHEMICALS IN INDUSTRY

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The prevention of occupational disease requires that knowledge of the potential hazards of the materials handled by workmen shall be readily available to industrial physicians and industrial hygiene engineers. Useful information concerning the more familiar chemicals is widely circulated but every year the research departments of several manufacturers are finding ways to produce economically one hundred or more chemicals new to industry, or sometimes new even to science. Many firms are becoming active in the field and in the aggregate well over 1,000 chemicals are newly available each year. Most of these will never enter commerce because applications justifying their production will not be discovered, but the sales departments of the corporations involved are staffed by resourceful, imaginative men, one of whose jobs is to find uses for new chemicals. Perhaps 250 new molecules will be made and shipped in small amounts each year and about 10 will eventually fill such a large need that tons will be shipped at one time.

The physician knows that an excess of any chemical whatsoever will injure the body, although he has confidence in the industrial hygienist who tells him that any chemical can be used safely once its particular hazards are known and guarded against. Nevertheless, it is pertinent to ask what is being done to prevent injury to the health of workmen by way of discovering the nature and degree of the hazards of these new compounds, and to what extent the health of the public is being protected in the matter of keeping unsuitable chemicals out of the preparations it can purchase for its own use or abuse.

Unfortunately, only broad generalities about hazards can be predicted in advance of pharmacological experimentation. Consequently, research chemists must make a new chemical to obtain a sample for test before they themselves can know how dangerous to handle it may be. If they are wise they will proceed as if the danger is great until the contrary is proven.

It is clearly the duty of a manufacturer to delay production of a chemical until the health hazards are well enough defined so that protection of his workmen is possible. It is also his duty not to sell a chemical for an application in which it would endanger the health of the public, and to inform customers, by proper labelling and otherwise, of the hazards of the compounds they buy.

One may say that the solution of the problem of new chemicals is simple. Turn each one over to a university pharmacology department for study before any is sold. This may be practical for the firm with one or two new compounds, but the manufacturer with more than 100 new ones every year finds that there are not enough pharmacology departments to do his work, and that the professors are reluctant to repeat the same tests over and over upon a continuing series of samples, in spite of the generous subsidies which may be tendered.

More important than this is the objection that it is impractical to spend thousands of dollars studying the health hazards of each of 100 chemicals every year when it is certain from past experience that sufficient applications to justify manufacture will be found for only 10; and that it may be several years before even these 10 will earn a profit. Yet if one compound injures a workman or customer, the direct financial loss may well be measured by thousands.

All producers of chemicals are probably aware of the problem which the flood of new materials presents to the industrial physician and the hygienist. The matter is the responsibility of industry and in only rare instances is it proper to depend upon federal or state agencies to alleviate the situation. Several solutions have been evolved by single manufacturers and it is of interest to examine one of them in some detail. Eight years ago one firm established, at its own expense, an industrial fellowship under my direction at the Mellon Institute of Industrial Research of the University of Pittsburgh. The organization has grown steadily and we now have a staff of 18 technically trained persons, and facilities to house about 3,500 animals, with further expansion visible in the near future.

By means of close contact with the research, production, sales, and medical departments of this manufacturer our group is made aware of all new chemicals which he develops. In most cases we are informed before more than a few pounds have been produced, and always before the compound has been sold for larger than trial orders. Our records of continuous toxicological studies over the years allow us to discriminate promptly between those materials which almost certainly are devoid of hazard to health when handled in industry, and the

smaller number which possibly may manifest injurious action unless precautions are taken to protect workmen from contact.

Upon all chemicals suspected of being potentially injurious to workmen or about which any doubt is entertained, we at once perform pharmacological experiments designed to elucidate the situation. By means of tests upon small animals we investigate the hazard of swallowing, of skin penetration, of inhalation, of skin contact, and of eye contact. The methods are standardized and the quantitative results allow us to select from our files another chemical, more familiar to the manufacturer, whose hazards (which he well knows how to guard against) bear such and such a relation to those of the new one under study. This information, because of species differences, is not quantitatively precise, but it is a guide to plant physicians in observing the first men to handle the new chemical in quantity.

We refer to this procedure as a range finding test.[1] It is performed in a short time at a cost of only a few hundred dollars, and the results can be made known to the producer before the stage of pilot plant operation is reached. If the chemical proves unpopular and is not sold, little effort has been wasted. If it is sold the toxicological data obtained serve as a guide for protecting workmen and also for judging the safety of proposed uses.

After a time it may become apparent that the new material will be made and sold in larger quantities. Not until then is it appropriate to perform more detailed and more expensive studies which will employ several species of animals and perhaps a few human subjects, and which will reveal more precisely the quantitative hazards which must be guarded against in applications of the chemical, and the nature of injury which overexposure may produce. When this information is published in the medical literature, our function is fulfilled in respect to the particular material, and the physician and hygienist are thus informed so that they can intelligently safeguard health.

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More people in this country are suffering from arthritis or some rheumatic manifestation than the sum of all of the individuals who are affected with cancer, tuberculosis, diabetes, and heart disease. —J. F. in Ohio St. Med. J.

OXYGEN TREATMENT FOR CHLORINE GAS EXPOSURES

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Chlorine is used in a number of industries. It is an industrial hazard among several classes of workers. These include dye workers, laundry workers, bleachers, chloride of lime workers, employees detinning tin plate scrap, and employees working in chemical plants where chlorine is utilized in the manufacture of various chemicals.

Chlorine gas has a characteristic pungent odor with an irritating effect on the nose and throat. It has a high coefficient of expansion and its solubility in water at 20° C. is 215 volumes in 100 volumes. It has been commonly supposed that chlorine reacts with the moisture on the tissues to form hydrochloric acid, and that its detrimental effects arise from the action of this acid. A more probable theory of the action of chlorine is that it affects moist tissues in the same way that it does other moist organic material, namely, by the abstraction of hydrogen from the water present, the liberation of nascent oxygen, and then the formation of hydrochloric acid.[1]

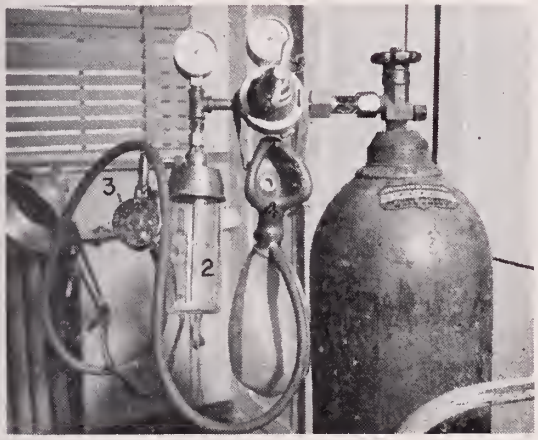
Inhalation of chlorine elicits respiratory reflexes and causes coughing, smarting of the eyes, a general feeling of discomfort in the chest, a hoarse cough, nausea and vomiting. The face may become red and bloated because of venous congestion. Inhalation of chlorine affects, and produces inflammation of, the entire respiratory tract. Edema of the lungs may occur after a severe exposure. The most pronounced symptoms are suffocation, a feeling of constriction in the chest and tightness in the throat. Fortunately, the gas has adequate warning properties provided one can get away from its vapors.[2]

PHYSIOLOGICAL RESPONSE TO VARIOUS CONCENTRATIONS OF CHLORINE,

	Parts of chlorine per million parts of air
Maximum concentration allowable for prolonged exposure	0.35 to 1.0
Least detectable odor	3.5
Maximum concentration allowable for short exposure (½ to 1 hour)	4
Least amount causing immediate irritation to the throat	15
Dangerous for even short exposure	40 to 60
Rapidly fatal for short exposure	1,000

Employees working in industries where chlorine is utilized have proper masks to wear in event it is necessary. There are times that an employee may be so situated that he is bound to inhale some of the fumes before he can procure a mask. This often is due to an accidental break in lines carrying chlorine or in leaking of other equipment. Wet chlorine is very corrosive and requires special metal or ceramic pipes to carry it. Chlorine is frequently handled as liquid, which rapidly volatilizes when spilled.

It is very important to treat these patients as promptly as possible after the exposure. Ten to fifteen minutes between the time of exposure and the institution of the treatment described in this article markedly affects the response to treatment. If treatment is not instituted promptly, the irritated mucous membranes of the respiratory tract become an ideal site for the invasion of infective organisms with resulting development of tracheitis, bronchitis or even bronchial pneumonia. Such complications result in loss of time from work.



Equipment utilized in treating persons suffering from chlorine and other noxious gas exposures.

1—Linde Oxygen Regulator.
2—Humidifier.
3—O. E. M. Percentage Regulator.
4—O. E. M. Oronasal Mask.

METHOD OF TREATMENT

The following equipment is utilized in our medical dispensaries: A large tank of oxygen is mounted on a light, movable carriage; attached to the tank is a Linde Oxygen Therapy Regulator (type R-85), which regulates the flow of oxygen in liters. The oxygen is passed through an attached humidifier. There is also attached a regulator for mixing air with the oxygen so that the oxygen can be given at any desired percentage. The oxygen is administered through an O. E. M. (No. 720) Oronasal mask, which has a rebreathing bag attached.

The patient is placed in bed at rest and covered with blankets. The mask is fastened to the face and a supply of oxygen is turned on in sufficient quantity to inflate the bag. The rate of flow is usually 5 or 6 liters per minute. The oxygen is started at 95 per cent oxygen and 5 per cent air. Some cases require that the oxygen be reduced to 90 per cent. The patient is told to take slow, deep breaths. In the average case coughing will cease almost immediately. After five minutes the oxygen percentage is reduced to 80 or 85. If the patient starts coughing again, the percentage of oxygen is increased to 90 per cent. The percentage of oxygen is gradually reduced, using the return of coughing as an index, until 50 per cent of oxygen is being given. If the patient has stopped coughing, the oxygen is discontinued. It usually takes from 20 to 30 minutes to carry out this treatment in the average case. These patients not infrequently will cough up two or three tablespoonfuls of clear mucous.

REPORT OF CASES

This method of treatment, using the equipment described, was started in October, 1943, and by February 1, 1946, 23 consecutive cases had been treated.

When brought into the dispensary, these patients are coughing violently and their faces present a red, congested appearance. There is some increase in pulse rate but there has not been noticed a marked increase in respiratory rate. There have been but few cases that showed any evidence of cyanosis. Very little deviation from normal blood pressure has been noted.

The longest period of time that oxygen has been administered in any one case is 45 minutes and this has been necessary in three instances. Two cases required 35 minutes, and two others 30 minutes each. The remaining number of cases required oxygen for 20 minutes or less to clear them up.

This treatment has proved very satisfactory because there has been no loss of time from work among the patients treated and there have been no complications except in one instance. This particular patient suffered a rather severe exposure requiring oxygen for 45 minutes. He had a history of allergy, and several hours after his exposure a mild

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attack of asthma developed. His chest findings were typical of asthma, presenting typical musical râles. He responded well to an injection of adrenalin and to an ephedrine cough mixture given later. He returned to work in forty-eight hours after the exposure and has had no further trouble.

SUMMARY

The treatment described has been very satisfactory in our experience. Prior to the utilization of oxygen in high concentrations for the treatment of chlorine gas exposures many such victims suffered from resultant bronchitis and other complications. These complications have not been observed in any of the 23 consecutive cases treated by this method.

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CLINICAL DIAGNOSIS OF ALLERGY

The clinical diagnosis of allergy is based upon the history, including the hereditary background and the personal allergic manifestations. A hereditary tendency to any of the allergic diseases complicates the problem and usually demands more careful and prolonged treatment than the acquired form. The cycle often runs thus: in infancy, colic and eczema; in the older child, intestinal disturbances, hay fever or repeated colds; in the adult, hives, asthma, sinusitis with or without polyp formation, colitis or migraine.

In allergic rhinitis the age of onset varies considerably, although it may occur at any age. In this group there was a marked variation as to the time of onset, namely, from infancy to age 77, and noted in 37 males and 63 females. Heredity is undoubtedly the most important predisposing factor. Of the 100 examined a positive history of allergy was obtained from 12 males and 28 females.

Several others gave a doubtful history. A comprehensive and painstaking history is essential in order to get a clearer understanding of the patient's illness. The family history is only confirmatory in establishing a probably allergic etiology. Many children have allergy and are treated for recurrent colds. After this treatment is exhausted they are then taken to the otolaryngologist for the removal of the tonsils and adenoids. If the operation is performed, a poor result will usually follow.

How many persons have allergy? Vaughan states it has been estimated that fully 10 per cent of the population of this country suffer from some form of allergy. Up to 2 per cent may have fever alone. About 65 per cent of all hay fever victims may later develop asthma. Probably three million persons in the United States are suffering from hay fever and asthma alone.—Fred E. Hamlin, M. D., in Virginia Medical Monthly.

MUSTARD GAS BURNS---CLINICAL EXPERIENCES

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On December 2, 1943, a ship loaded with mustard gas bombs was sunk by enemy action in an air raid. Some of the mustard bombs burst open, and their contents were mixed with the water of the harbor. The nature of the cargo was not generally known, and, as other ships in the harbor were sunk or damaged, men were forced into the contaminated water, or splashed with it, without realizing their dangerous predicament.

The experiences of these survivors are reported because of the unusual manner of contamination, and the unusual problems encountered in the care of these patients.

Thirty-five men from four different ships were transferred to our Naval Dispensary on December 18, 1943. They showed injuries of varying degree and in various stages of healing, but the one condition common to all was vesicant burns. These were most marked at points where clothing had hung closely to the body or where a constricting band had girdled the extremity or trunk. There were many burns of the groin, penis, buttocks and pelvic region, several deep burns of the ankles and the waist line, also of the wrists of those who had worn a wrist watch or bracelet.

When their ships were sinking, men went over the side in their clothes and life jackets. Those who were injured were helped by shipmates and some were taken directly from ship to shore in life boats. Being splashed with the water while in the boat caused burns where the water wet the skin, and one man who had trailed his hands in the water while riding in a life boat developed vesicant burns of the fingers. Several of the men who had been in the water described it as covered with oil, but they noted that the oil was irritating to the eyes and had a peculiar odor. No one attached any particular significance to this observation, however, and, on reaching shore, those who were uninjured went to a local barracks. Many of the men kept their wet clothes on, and only after two to seventy-two hours did they begin to have the accentuated burning of the eyes and skin, and the respiratory symptoms which necessitated their hospitalization.

The following selected case histories show the manner in which the survivors sustained their burns

and illustrate the clinical problems which were encountered in treating these patients.

Case 1.—W. A. R., S1c, age 19, escaped from his sinking ship to a small boat. The lower half of his body and his hands were wet with sea water in making this transfer, and his anus was again splashed by spray in the trip ashore. On land he was knocked down by an explosion, and, although not apparently injured, he was taken to the hospital and placed in bed. Two days later areas of skin over various parts of his body became reddened after which blisters and ulcerated areas developed on the wrists, genitalia, anus and lower extremities. From the 3rd to the 7th day hoarseness, aphonia and cough developed.

Treatment: The blisters were aspirated and dressed with sulfanilamide powder and vaseline gauze. On admission to this dispensary the tissues around the burns were infected, crusted and swollen so that irrigation with normal saline solution and, later, washing with soap and water were necessary. An electric heat cradle was placed over the patient and with daily cleansing and wet dressings the ulcers healed. He was given cough mixtures to alleviate the respiratory symptoms. X-ray of the chest was normal, and his cough and aphonia disappeared. He was evacuated 75 days after exposure. When he left, there was no cough or fever, and he was ambulatory.

Case 2.—D. F., age 28, went over the side into the water when he was ordered to abandon ship. He suffered no injury but was in the water about one-half hour. Sixteen hours later his eyes began to burn and the skin of his arms, genitalia, buttocks and feet were irritated. On admission to this dispensary he still had a moderate bilateral conjunctivitis. There were infected 2nd degree burns of the lower abdominal wall, both groins, the penis and both buttocks, and marks of healed first degree burns were present on both forearms. The patient had noted some productive cough since shortly after his exposure, but x-ray of the chest was negative. His temperature on admission was 103.8 F. but came down the next day to approximately 100 degrees F. and remained so until just before his departure.

Treatment: After rescue he had received normal saline irrigations of the conjunctivae and dressings wet with saline were used on his eyes and on the burns of his skin. The infected wounds healed slowly. Full dosage of sulfadiazine by mouth failed to produce demonstrable clinical changes in the burns or on his temperature. Normal saline dressings, and an electric heat cradle produced more rapid improvement in the infected burns. Protein rich, high caloric diets, vitamins, iron therapy and encouragement aided his recovery. All areas except a granulating spot in his penis were healed when he was evacuated to U. S. A. 60 days after exposure. He was ambulatory.

Case 3.—C. H. W., 2nd eng., age 34, was knocked down by an explosion and was unconscious for a few minutes. He regained consciousness, noticed no injury, and abandoned ship into a mesh-bottomed life raft. He was thoroughly wet and kept his shorts on afterward. Five hours later he began to notice itching and burning of his penis which progressed until 1300 that day when he fainted from the pain. Twenty hours after the bombing he had burns of the arms, genitalia and buttocks and generalized erythema. The burns about the genitalia became very severe and blisters appeared elsewhere on his body where the skin had been wet. He received local moist dressings to 2nd degree burns which soon became infected. On admission to the dispensary the following lesions were noted: a healed burn of the neck and shoulders, healed pigmented burns of the abdomen, and infected 2nd degree burns of the penis, scrotum and buttocks with great swelling and crusts. Small, infected, draining 2nd degree burns of both forearms, the back of the neck and the instep of the left foot were also present.

Treatment: Cleansing of the burns, washing and cleaning of the patient, and application of dressings wet with normal saline solution and later with 1:5000 solution of potassium permanganate were carried out. He was then covered with an electric heat cradle. Daily dressings, encouragement, forced feeding and vitamin therapy were used. Sulfathiazole in full dosage by mouth seemed to aid but little in reducing the infection and fever.

On December 26, 1943, the laboratory studies showed the following results: RBC 3,840,000, Hg. 70 per cent, WBC 17,600, hematocrit 36; the urine showed a moderate amount of albumin. A transfusion of 500 cc. of whole blood was given after which the burns healed slowly and his general condition improved gradually. He was evacuated on the 75th day after exposure, and his wounds were healed.

Case 4.—L. L. K., GM3c, age 24, was struck by a piece of shrapnel in the right thigh during the air raid. His femur was shattered and he carried his right leg in his arms while he was taken ashore in a life boat by shipmates. He was splashed by spray while going ashore and was quite wet. On reaching the local hospital he was in severe shock and his condition was so critical that he was immediately transfused and treated for hemorrhage and exposure. The wound was then cleaned and debrided, the leg was placed in a Tobruk splint, and the patient was given full dosage of sulfadiazine by mouth. Thirty hours later blisters appeared on his back, abdomen, groins and forearms. These were aspirated and dressed with vaseline. On admission to this dispensary he had a temperature of 103 F., pulse of 120 and was somewhat dehydrated. X-ray showed unsatisfactory alignment of the femur and a foreign body in the popliteal space. (Fig. 1.)

Treatment: The Tobruk splint was removed and with it came a sheet of epidermis from blisters on the lower thigh and knee, but the skin about the wound higher up was free from burn. A Kirschner wire was placed through the tibia at the ankle and extension applied until the burned area had healed sufficiently to permit application of a complete plaster cast of the leg and pelvis. This pus drained from a sinus of the thigh, a culture of which showed B. proteus vulgaris, but the burns were not badly infected. As soon as healing of

the overlying skin permitted, the shrapnel in the popliteal space was removed, and later a sequestrum was taken out of the thigh at the fracture site. During convalescence this man sustained a pulmonary embolus which caused shock, hemoptysis and slight retardation of his progress. The vesicant burns of the back, abdomen, arms and knee healed promptly and well, but his general improvement was slow. He received repeated transfusions, forced high caloric feedings, vitamins and encouragement from all hands. The repeated, necessary operations on his upper leg caused some depression but aided in producing a healed sinus and bony union. He was evacuated, being able to walk with the aid of a crutch, 134 days after injury.

DISCUSSION

Mustard (H), bis-beta dichlorodiethyl sulfide $(Cl.\ CH_2CH_2)_2S$, is an oily liquid slightly soluble in water. It is quickly absorbed by cotton or wool clothing and more slowly by rubber clothing. While it disappears gradually by evaporation and hydrolysis it is a persistent vesicant and therefore may be a source of danger for a prolonged period unless destroyed by decontamination.

SYMPTOMS

The eye is particularly vulnerable to mustard, and smarting and burning of the eyes, tearing, and blepharospasm were frequently the first symptoms noted by our patients. The period of latency before the onset of symptoms varied from thirty minutes to seventy-two hours, but progressive exacerbation of symptoms for ten days was noted by some. There was no keratitis present at the time of admission to our activity, but there were records of patients with keratitis in the first few days after exposure, and a few could not see well for several days.

The second symptom in frequency and general distribution was itching and burning of the skin in areas in which a brawny, purplish erythema later developed. One of the men stated that he felt the itching some time before any change in color of the skin was noted.

As the vesicant effect progressed it caused blisters, painful irritation and swelling. Another patient, who had spent the night in wet shorts, suffered so severely from his swollen, burned genitalia that he fainted.

SIGNS

It was noted that skin areas about wounds which had been cleaned promptly, with or without debridement, were free from burn or only slightly irritated in contrast to areas elsewhere in which appeared 2nd degree burns. In general, patients whose skins were darker seemed less severely irritated by the vesicant than those of ruddy complexion. One red haired man was particularly affected. This finding coincides with the similar resistance of dark skins to thermal and actinic irritation.

Burns and lacerations were in varying stages of healing when the patients were received at the dispensary. Second degree burns were infected, and they were covered with crusts and exudate or were angry, weeping, edematous ulcers. The most startling of these lesions, on first appearance, were those of the genitalia. The penis and scrotum of some patients were bulbous, moist masses of tissue almost without form. There was a foul, slightly sweet, sickening odor, and the mental depression resulting from the whole experience was evident in the behavior of several of the men. When plaster of paris casts were removed from the extremities of two patients, sheets of epidermis came off from shallow blisters which were present beneath, and the skin appeared as a granulating and weeping ulcer.

Unsuspected irritation of the respiratory mucous membrances due to inhalation of vaporized mustard was present in many of the patients. Aphonia, cough, and respiratory embarrassment had appeared as late as three to ten days after exposure.

There was a universal complaint of pharyngitis, and a great deal of laryngitis and tracheitis was present. The lateness of the onset of these symptoms suggested either an extremely long latent period, or a post-rescue exposure from retained clothing or the elimination of absorbed gas through the lungs. The pulmonary symptoms were often very severe and seemed to have been the primary cause of the death of a few of the men who failed to reach our dispensary. The serious respiratory effects are well illustrated by the following notes from the records of four men who died elsewhere and from the chart of our only fatality.

H. R. W., S1c, "Received severe second and third degree burns of the arms, abdomen, thighs and legs, and erythema of the rest of the body. He was in shock when admitted. He has severe respiratory complications consisting of laryngitis, tracheitis, bronchitis and bilateral bronchopneumonia with marked respiratory embarrassment. Condition is critical. The burns are secondarily infected and show no signs of healing." Patient died sixteen days after exposure.

F. A. B., S1c, "Received severe burns of the chest, back, buttocks and thighs. He was in shock when admitted. He has respiratory complications consisting of laryngitis, tracheitis, bronchitis and lobar pneumonia, and is expectorating blood tinged spu-

tum. The burns show no healing." Patient died nineteen days after exposure.

H. R. A., S1c, "Received severe burns of both wrists, legs and buttocks and had generalized erythema. He was in shock when admitted. He has respiratory complications of laryngitis, tracheitis and lobar pneumonia. The burns show no evidence of healing." Patient died thirty days after exposure from respiratory embarrassment and toxemia.
R. F., Ship's Cook, "Patient received severe burns of the face, both arms, lower abdomen, scrotum and penis, and both lower extremities. He was in severe shock when admitted and has developed respiratory complications of laryngitis, tracheitis, bronchitis and bronchopneumonia. He is very toxic and his condition is considered critical." Patient died twenty-four days after exposure.

A. G. C., 3rd Ass't Mate, "Patient was injured on 12-2-43. He had erythema and vesiculation of hands and forearms, scrotal region, thighs and buttocks. He developed cough and expectoration on 12 December, and was jaundiced. Examination on 18 December, 1943 on admission to our dispensary, showed inability to talk above a whisper. Extensive second degree infected burns of hands, arms, groins, genitalia, perineum, buttocks, thighs and both legs were present. Pigmentation of first degree burns of thorax, abdomen, back and face was found. There was a healing laceration over the right eye involving the supraorbital ridge. Signs of fluid and pulmonary changes were present in the right chest. Aspiration yielded cloudy fluid which cultured hemolytic Gram-positive cocci. The blood showed anemia and leukocytosis. The patient's temperature ranged to 104 F. and his respirations were 35 to 50 per minute. He expired on 20 December, 1943."

Gross pathological diagnoses were as follows:

(1) Burns, chemical, generalized, first and second degree, infected.

2) Abscess, subcutaneous, left supra and infraclavicular region with communication to the pleural surface of the left lung apex where it was localized by adhesions.

(3) Fracture, complete, recent, of the fourth right rib at the posterior auxillary line.

(4) Abscess, right thoracic wall, in the area of rib fracture, communicating with the right pleural cavity.

(5) Empyema, right pleural cavity.

(6) Pleurisy, suppurative, right side.

(7) Atelectasis, the lower lobe of right lung.

(8) Pleurisy, fibrinous, apex of the upper lobe of the left lung.

(9) Laryngitis, acute.

(10) Tracheitis, acute.

(11) Bronchitis, acute.

(12) Splenitis, acute.

(13) Laceration, right supraorbital region, healing.

Gastrointestinal symptoms were not prominent. Several patients vomited after coming out of the water, but no definite evidence pointed to direct irritation of the stomach or intestines from mustard. In the case of the man who died at our dispensary jaundice developed only after generalized infection was well established.

The laboratory data were not significant, but several patients showed high concentrations of urine and some transitory albuminuria. A few cases of moderate secondary anemia were demonstrated, and leukocytic responses to infection were noted. Hematocrit studies were carried out only when indicated and the readings coincided with the clinical conditions of the patients. Cultures of the infected burns grew a heterogeneous group of organisms with the Staphylococci predominating.

TREATMENT

Prophylactic.—No decontamination or protective treatment was used on these patients as mustard had not been suspected until the epidemic of erythema and vesication appeared. As most of the patients had only the clothes which were worn, changing of clothing was not carried out, and many wore contaminated garments until after burns and blisters appeared. This not only allowed for increased vesicant effect but permitted bacterial and dirt contamination of the eroded and blistered areas of the skin as well as furnishing a persistent source of irritation to the eyes and respiratory system. Some accidental prophylactic treatment was given, for patients who complained of irritation of the eyes received irrigation of the conjunctivae with boric acid solution. This washing and the dilution of the vesicant by sea water undoubtedly prevented more severe injuries to the eyes. Those who were wounded had the skin areas about their wounds cleansed, and, as previously noted, this left islands of skin relatively free from burns.

Symptomatic.—Patients who complained of irritation of the eyes attributed it to the oil on the water and they received irrigations of the conjunctivae with boric acid solution after the symptoms had developed. A few showed a keratitis and received atropine mydriasis until their symptoms cleared. When erythema and blisters appeared some were treated with amyl salicylate locally, but most burns were covered with dressings wet with normal saline solution, or with vaseline and a pressure bandage. Records indicated that patients who had received sulfonamide medication after the vesicles had

appeared sustained about the same infection of wounds as those who had not been so treated, but the man who had a compound fracture and had received full sulfonamide dosage from the day of injury exhibited less infection, even in the areas on his back and chest where there had been no prophylactic cleansing.

Closed dressings did not prove effective. After a few days' trial we were convinced that dressings wet with normal saline or potassium permanganate solution 1:5000 plus the use of full body heat cradles with electric lights constituted the most rapid and satisfactory method of treatment. Crusts were washed free from purulent granlating surfaces, and, under morphine or barbiturate sedation, patients were washed with soap and water. Cleanliness being next to Godliness was never more clearly demonstrated, for the improvement in the wounds and in the patients' morale was noteworthy.

There was difficulty encountered in freeing the granulating areas from infection, and very few became satisfactory for skin grafting before the edges had grown inward enough to obviate that need. Results obtained by the use of powdered sulfonamides locally and tablets by mouth in the treatment of the established infection were disappointing, but sulfonamide ointment proved moderately successful. Had penicillin been available, its local and systemic effect on the infectious processes would have made an interesting study.

Despite the purulent drainage there was no apparent hindrance to the growth of epithelium from the wound edges, or from small islands within the ulcer areas. We did not see any unusual ridging or rolling of epithelium at the edges of the ulcers such as would indicate indolence.

The manner in which mustard gas can complicate the treatment of other injuries was well illustrated in case 4. The patient had a severe compound comminuted fracture of the right femur which had been encased in a Tobruk splint. On arrival he was very toxic, had a high fever and a rapid pulse. It was shown by x-ray that unsatisfactory alignment of the fragments of the femur was present and that there was an adjacent large metalic foreign body. (Fig. 1.) When the plaster of paris encasement was removed, sheets of epidermis came off the limb leaving granulating surfaces. The area directly about the wound high on the thigh was clean and not denuded, but the burns at the knee prevented our using adhesive extension or skeletal traction on the femur. It was necessary to place a Kirschner wire through the ankle in order to obtain traction. Drainage from the wound persisted, due to a piece of shrapnel 3.5 x 3.5 x 4 cm. in the popliteal space, but removal of the shrapnel was delayed on account of the burn over this area. When the skin healed, the foreign body was removed, a sequestrectomy was done, and the wound closed. Despite a mild local wound infection, the shock of sustaining a pulmonary embolus, the effect of the fracture and burns, this patient recovered and was ambulatory when returned to the U. S. A.

Fig. 1

The value of whole blood in the cases with delayed healing should be stressed. Despite good food, vitamins, sulfonamides and careful nursing, a few patients required the vital 'boost' of a transfusion to start progressive convalescense.

COMMENT

The clinical courses of these patients emphasized the insidious and delayed effect of mustard gas even when diluted with, or suspended in, large quantities of salt water. They also re-emphasized the need for a personal as well as a divisional responsibility for rapid decontamination to avoid long periods of incapacitation.

Wearing of contaminated clothing was responsible for most of the severe burns. The infection of the blisters and burned areas was dangerous and, while we were unable to demonstrate scientifically the type of destruction produced by the mustard or the depression of adjacent unkilled tissues, considerable lowering of resistance in the burned areas was indicated clinically. Our one fatality demonstrated the dangers of involvement of the respiratory tract and of secondary infection in burned tissue.

Treatment of these patients was largely symptomatic, but the histories show the value of early local cleansing, prophylactic sulfadiazine by mouth from the time of exposure, and an open rather than a closed type of dressing.

PENICILLIN AND SYPHILIS

The fact that gonorrhea and syphilis are frequently acquired at the same time but have different incubation periods, as well as the nature of the effect of small doses of penicillin on the early manifestations of these two infections, renders the masking of the early manifestations of syphilis a definite possibility. Thus, the incubation period of gonorrhea is usually three to five days and only rarely more than a week, and its manifestations are usually obvious enough to the patient so that medical treatment is sought. As little as 100,000 units given in four or five intramuscular doses over a period of six to nine hours, or a single dose of 200,000 or 300,000 units in a beeswax-peanut oil mixture produces complete cures in the great majority of cases. The incubation period of syphilis, on the other hand, is usually about three or four weeks and may be much longer. Treatment for gonorrhea may, therefore, be given some time before the primary syphilitic lesion appears.—New England J. of Med.

GALL BLADDER DISEASE

It has been estimated that about sixty per cent of the people who consult an M. D. do so because of indigestion, and that twenty per cent of cases with indigestion as the chief conmplaint have gall bladder disease.

It occurs three times as frequently among women as among men and the most commonly accepted as predisposing factors are typhoid fever and pregnancies.

When such figures as seventy-five per cent of women operated upon for gall bladder disease are women who have borne children are quoted, it seems that the same could be said of all adult diseases, but certainly the stasis and cholesterol disturbance during pregnancy probably do play a part. As to typhoid fever, the connection has been proven many times by the recovery of typhoid bacilli from gall stones, but I believe that many of our infectious diseases are also irritating factors in the pathology.—William Bates, M. D., and D. C. Emenhiser, M. D., in Delaware St. Med. J.

TEMPER AND RHEUMATOID ARTHRITIS

The mental atmosphere in which the rheumatoid arthritic lives may determine his recovery. After studying fifty cases, Dr. Walter Bauer found that in 66 per cent there was a direct correlation between the disturbing episodes in the patient's life and the flare-ups of his arthritis. In one-half the cases there was unhappiness and frustration in the home. The percentage in my cases was even greater. I found that the unhappy relationship and consequent fear and resentment came from their selfishness and demand. A burst of temper was followed by a flare-up of the joints. Such emotional upsets would undo all the improvement gained by medical treatment. Some change had to take place in the patient and his home life in order to prevent these set-backs; otherwise ultimate improvement was uncertain and limited.

This is where the "spiritual history" comes in. It gives the foundation on which to start building a new approach to life. Sometimes the patient, often the whole family, needs a change of heart—a new spirit of cooperation and interest. Even though they may not get well physically, as sometimes happens, with a better outlook on life they fit into their environment better, not as a menace but as a constructive force.

After treating people in this way for the last twelve years, I am convinced that homes where there is constant friction should be as much our concern as any other part of our medical treatment. Surely this is preventive medicine at its best. It is appalling to realize the number of unhappy homes in America and the amount of sickness of mind and body they are producing. Such homes are also a grave economic problem to the country.

The physician who is sincere and who accepts such responsibility can go a long way in producing harmony in every home he visits, for people heed what their doctor says. He is welcome in their home; he can be friend, father confessor, guide, and teacher. He can help people realize their own selfishness, and thus acknowledge where they are wrong and need to be different. He can guide them to a new understanding of their responsibility in their family life. But in order to guide others, the physician must first have found the answers for himself. Such a physician is a public benefactor in his community. By building moral fibre and spiritual standards in the lives and homes of his patients, he is truly making his greatest contribution to the health of the nation.—Loring T. Swain, M. D., in J. Ind. St. Med. Assn.

The President's Page

Know the facts; then act! What are the facts regarding so-called postgraduate or refresher courses? Facts are cold things, so our thinking of them must also be cold. One fact is that education is a process of living rather than a preparation for future living. The whole process is a lifetime undertaking.

Unfortunately too many of us feel that our education was completed when we were graduated from medical school. Many of us closed our minds when we closed our books for graduation. It is regrettable that so few of us pursue any type of higher education.

It is my belief that educational facilities for a continuous course of study should be constantly available in our local communities. Every hospital in West Virginia should have a teaching function. Any institution worth recognition has a wealth of clinical material. It is laudable that many of our hospitals have for a long time been making good use of it. In their staff rounds, clinical-pathological conferences, and tumor clinics, they furnish for their resident staff a continuous graduate course. The busy doctor could benefit greatly by exposing himself to these postgraduate courses being held weekly in his home community.

We all appreciate the fidelity and devotion of our busy practitioners. They are serving a great need. But long ago one well-meaning Prime Minister found out too late that "being too busy is some danger." While "being too busy" might not be actually dangerous to our hard-driven doctors, it is at least risky because they might overlook valuable opportunities for professional growth.

It was Emerson who said: "There is a time in every man's education when he arrives at the conviction that envy is ignorance; that imitation is suicide; that he must take himself for better, for worse, as his portion." In knowing the facts, in accepting our own limitations, in striving to help each other be better doctors, we will regain the much desired confidence of the public. We will also have a real brotherhood of doctors.

Andrew E. Arnick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journel, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

THANK YOU, KIWANIS

It has been our observation that the luncheon clubs of this country are doing a good job in that they constitute an important part in what might be termed the voluntary adult educational mechanism of America; that they represent a fairly characteristic cross-section of American life; that they are moulders and interpreters of American public opinion; and that they make a definite contribution to civic betterment. Accordingly, it gives us much pleasure to learn that the recent annual convention of Kiwanis International at Atlantic City opposed the general effort emanating from Washington to regiment and control everything and everybody with a mainspring in the national capital directing all activities of our citizenry from the cradle to the grave.

The democratic spirit and sound common sense of Kiwanis is exemplified in the resolution adopted against professional regimentation. The convention voted to oppose "all efforts by propaganda, legislation, or executive sponsorships to socialize medicine, dentistry, law, engineering and other professions.

Congratulations, Kiwanis, upon the soundness of your judgment, and thank you for supporting the principle of unshackled professions in our democratic way of life.

DISEASE STATISTICS

In an address before the recent meeting of the American Geriatrics Society in New York City, Dr. Albert Mueller-Deham questioned seriously the accuracy and the value of our morbidity and mortality statistics. Analyzing a large number of autopsy reports he showed that clinical diagnosis and pathological diagnosis coincide much more closely in the younger than in the older groups of patients. He deduced as a corollary that accurate diagnosis becomes progressively more difficult as the age of the patient increases; or, in other words, the older the patient, the more difficult the diagnosis. Moreover, he showed also, certainly so far as his statistical analysis was concerned, that mortality statistics as represented by death certificates actually filed tend to overemphasize cardiovascular conditions and to underemphasize infections as killers of the aged.

The lesson we, as practicing physicians, can learn from such presentations is that we should endeavor to make our own morbidity and mortality reports more nearly accurate. The morbidity reports received by health departments are notoriously unreliable as to completeness, and all too often death certificates represent what at best might be called an intelligent guess at the cause of death. It is true that our vital statistics laws may in a measure be responsible for inaccuracies in reporting, but a certificate of licensure to practice medicine imposes upon the recipient certain obligations to the body politic as represented by the state, not the least of which is accurate reporting of morbidity and mortality statistics. While absolute accuracy is admittedly unattainable, such a degree of accuracy as can be had depends upon those of us who are on the firing line of actual practice, and we should make our reports as nearly accurate as within us lies.

MORTALITY OUTLOOK

Unless public health officials learn how to view general death rates in a proper light, they may be surprised and discouraged some day to find that the death rate in West Virginia is rising.

The number of deaths and the death rate in West Virginia during the past twenty years have fluctuated considerably, with the death rate showing a fairly consistent downward trend—from a high of 11.2 per 1,000 population in 1926, to a low of

9.2 per 1,000 population, which rate has been achieved four times since 1933. The number of deaths reached a peak in 1936, with 19,909 deaths reported; while West Virginia's population of 1,901,723 in 1940 was the largest ever recorded, with only 17,577 deaths reported for that year.

According to Hi Steele, director of the division of vital statistics of the State Health Department, a large part of the decrease in the death rate can be traced to sanitary, hygienic, and medical improvements. Another part may be due to a lowering birth rate, following a relatively high birth rate, or in other words, to an increasing ratio of persons in the young and middle-age groups. This condition will not continue indefinitely. The birth rate in West Virginia for the ten years, 1922-1931, averaged 26 per 1,000 population, with 1925 showing the high rate of 28.4 per 1,000 population, while the average birth rate for the next ten years (1932-1941) was only 22 per 1,000 population. In due course, the young will become middle-aged, and the middle-aged will become old; the excess of population will enter these age groups, where the specific death rates are high, and this will cause the general death rate to rise.

The war in a most horrible and pitiful way cut out a large number of males in the middle-age groups —how many we do not know at this time. Temporarily, this too will increase the general death rate. On the other hand, these young men will not live to enter the old-age groups, where the specific death rates are higher.

To answer the question as to what is the lowest practicable death rate, we must first decide what is an ideal distribution of population as to age and sex, and then consider what diseases at the different ages we can reasonably expect to eliminate.

IMPORTANT VA RELEASE

The attention of all members of the State Medical Association participating in the Veterans Care Program is called to an important release of the Veterans Administration Regional Office at Huntington, printed elsewhere in this issue of The Journal. The definite instructions issued by the regional office cover many points about which doctors have made inquiry, and all fee-designated physicians are urged to read the release in its entirety.

OUR ALCOHOL PROBLEM

It is estimated that the American people expended last year more than seven billion dollars for alcoholic beverages, more than the total expenditure for medical care for the same time. In addition to this enormous monetary outlay, the fact that the number of inebriates admitted to hospitals for treament is rapidly increasing, poses a problem not easy of solution. A recent editorial in the Journal of the American Medical Association discusses at length some phases of the situation so well that we quote it entirely:

The Research Council on Problems of Alcohol says in a recent publication that 50,000,000 persons in the United States use alcoholic beverages, of whom approximately 6 per cent become excessive drinkers, and of this number 25 per cent become chronic alcoholic addicts. This makes a total of 1.5 per cent of all drinkers, or some 750,000 who become alcoholic addicts. In addition to the 750,000 chronic alcoholic addicts there are about 2,250,000 other kinds of excessive drinkers. There are about 13,500 persons in the United States with an alcoholic psychosis. The cost of caring for alcoholic addicts in the mental hospitals of the United States, as of 1940, is approximately $13,000,000 a year. The cost of maintaining drunken persons in jails is about $25,000,000 a year. The cost to society of crime associated with habitual excessive drinking is estimated to be over $175,000,000 a year.

The council stresses that ignorance regarding the problem of alcoholism and lack of funds hinder the development of remedial measures. Annual appropriations and contributions to official and voluntary agencies for work with alcoholic addicts total about $500,000, compared with $130,000,000 to $160,000,000 for tuberculosis and $16,000,000 to $19,000,000 for infantile paralysis.

In Sweden before the war there were ten state hospitals devoted exclusively to the treatment of alcoholism, in Switzerland seventy dispensaries where an alcoholic addict could go for free advice and where institutional care could be arranged, and in the Netherlands there is a consultation bureau in each of the larger cities. In the United States municipal, state and federal governments have made no such facilities available. In most communities the only public institutions willing to accept an alcoholic addict is the jail. In some large cities the municipal hospital will accept alcoholic addicts only for sobering up treatment. In many of these hospitals, as well as in many jails, conditions are crowded and insanitary.

The estimated amount spent by the people of the United States for alcoholic beverages in 1944 was over $7,000,000,000. The estimated amount paid for radio, newspaper and magazine advertising by national advertisers in the liquor industry in 1940 was over $27,920,000. The council calls attention to the fact that in the absence of an intelligent remedial program a satisfactory solution of the problem is not possible.

Millions have been spent for prohibition, millions for repeal, millions for prohibition again, millions to induce people to drink, millions to stop them drinking. The Research Council proposes greatly expanded research on the nature and treatment of alcoholism, the personality of the alcoholic addict and related subjects. It also recommends the development of more adequate hospital facilities and increased education, together with industrial and legal controls. Reports on the council's research will be available to doctors, scientists and other interested persons.

The Research Council on Problems of Alcohol is one of five national agencies dealing with the problem of alcoholism. The other four include Alcoholics Anonymous with over 20,000 members in 600 or more local groups; the Section on Alcohol Studies of the Laboratory of Applied Physiology at Yale University, which operates two clinics and has held three summer schools on the problems of alcohol; the Quarterly Journal of Studies in Alcohol; the National Committee on Education for Alcoholism with headquarters in New York, which employs a national lecturer and who has been active in promoting local committees, and the National Committee on Alcohol Hygiene of Baltimore, which provides speakers and publishes a bimonthly periodical.

Surely such a prospect demands the careful thought and consideration of everyone interested in the social welfare of America. The world looks to us as its greatest nation and expects us to lead it out of its present chaos. The greatest nation on earth cannot efford to become a nation of drunkards;

DOCTORS AND SELECTIVE SERVICE

The service to the Nation of thousands of the members of the medical profession participating in the Selective Service System during World War II is most commendable. Even prior to the passage of the Selective Service Act the medical profession took measures to prepare for the part its members were to play. State medical societies appointed committees for national defense. These committees polled the members of the societies for volunteers to serve as Local Board Examining Physicians and members of the Medical Advisory Boards so that when the first examinations were made in November, 1940, the medical profession was organized and prepared to make complete physical examinations of registrants.

The Selective Service Regulations provided for one or more examining physicians to be appointed to each of the local boards, of which there are over 6,000. During the operation of the Act there have been appointed 27,714 Local Board Examining Physocians and 7,185 Local Board Examining Dentists. In addition there also were appointed 8,521 members of Medical Advisory Boards. Over 14,500,000 physical examinations were performed throughout the Nation by these uncompensated volunteer physicians in the operation of the Selective Service System's procurement of manpower.—Major General Lewis B. Hershey in Medical Annals of the District of Columbia.

General News

GOVERNOR NAMES DR. JOS. L. KNAPP HEAD OF WESTON STATE HOSPITAL

Dr. Joseph L. Knapp, who has just completed five years' service as neuro-psychiatrist in the medical corps of the army, has just been appointed superintendent of the Weston State Hospital (mental), succeeding Dr. Orin R. Yost, who tendered his resignation in February. The appointment was made by Governor Clarence W. Meadows.

Dr. Knapp graduated from the University of Illinois College of Medicine in 1933, and served a rotating internship at West Suburban Hospital, Oak Park, Illinois. He had eighteen months' experience in general practice before specializing in psychiatry. He held the position of senior neuro-psychiatrist for five years at the 2400-bed State Psychiatric Hospital, at Traverse City, Michigan. While there, he was in charge of insulin shock therapy, and also had over three years' experience in metrazol shock therapy. During his last two years at Traverse City, he was a member of the speakers bureau of the University of Michigan, speaking to lay groups on the subject of mental hygiene.

In May, 1931, Dr. Knapp was called to active duty in the army and assigned to the Station Hospital at Camp Croft, South Carolina, serving as chief of the neuro-psychiatric service. Afterwards, he was assigned as neuro-psychiatric consultant at the replacement center at Camp Croft. For thirteen months, he was division neuro-psychiatrist for the 89th infantry division, and from February, 1945, to January, 1946, served as chief neuro-psychiatrist at the rehabilitation center at Fort Knox, Kentucky. He was recently released from the medical corps of the army with the rank of lieutenant. colonel.

Doctor Knapp is a member of the American Psychiatric Association, and is the author of "The Psychotherapeutic Push Method as Practiced in an Army Rehabilitation Center," published in the November, 1945, issue of the American Journal of Psychiatry.

DR. WILLIAM R. LAIRD HONORED

The degree of doctor of laws was conferred upon Dr. William R. Laird, of Montgomery, at the graduation exercises at Hampden-Sydney college in June. The degree was conferred by Dr. Edgar G. Gammon, president of the college, following the commencement address delivered by Dr. Walter A. Newman, vice president of the Virginia Polytechnic Institute.

CONGRESS ON INDUSTRIAL HEALTH

The annual Congress on Industrial Health, sponsored by the Council on Industrial Health of the American Medical Association, will be held at Boston, September 30-October 3, 1946. The full program for the meeting will be made public later in the summer.

PROPOSED AMENDMENTS TO THE CONSTITUTION

The following amendments to the constitution of the West Virginia State Medical Association, sponsored by the Cabell County Medical Society and offered at the annual meeting of the House of Delegates at Huntington, May 13-15, 1946, will be submitted to the House of Delegates for final action at the 80th annual meeting in 1947:

Article V.

Sec. 1. Amend the section so as to read as follows:

"The House of Delegates shall be the legislative and business body of the Association and shall consist of (1) delegates elected by the component county societies, and (2) **ex officio,** the President." (This section now provides that all ex-Presidents shall be members of the House of Delegates.)

Article IX.

Sec. 2. Amend the section, lines 4, 5, and 6, by striking out the words, "No Councillor shall be eligible to succeed himself after four years as Councillor, but he may be elected after two years' absence from the Council," and insert in lieu the following: "No member who has served a two-year term as Councillor shall be eligible for election or reelection to another term."

Sec. 4. At the end of the section, change the period to a semi-colon and add the following: "however, all ex-Presidents shall be eligible for election by their respective component societies as delegates to the House of Delegates."

Sec. 6. Insert new section 6 as follows: "No member shall hold more than one office in this Association at the same time, either elective or appointive." Renumber as section 7 present section 6.

RELOCATIONS

Dr. Ernest L. Shore, of Harrisonburg, Virginia, has located for the practice of his profession at Salem.

* * *

Dr. J. O. Williams, of Ameagle, has moved to Alderson, West Virginia, where he will continue in general practice.

* * *

Dr. Lucius L. Powell, formerly of Rochester, New York, has located in Huntington, West Virginia, with offices at 1102 Fifth Avenue.

ASKS DATA ON INDUSTRIAL PRACTICE

All doctors engaged in industrial practice in West Virginia are requested to write to Dr. J. L. Patterson, secretary of the Section on Industrial Health of the West Virginia State Medical Association, furnishing full name, address, and company by whom employed. It is also requested that Doctor Patterson be informed whether or not the doctor is engaged in full-time or part-time industrial practice.

CANCER COMMITTEE ADVOCATES TUMOR CLINICS AND CANCER MEETINGS IN STATE

A meeting of the Cancer Committee of the West Virginia State Medical Association was held May 14, 1946, during the annual meeting at Huntington.

The desirability of each component society holding a cancer meeting at least once a year was discussed again, and the members expressed the thought that the meeting should emphasize the treatment and control of cancer for the general practitioner. It was also suggested that each society appoint an active local cancer committee to work out problems of cancer control in their respective communities. These committees would arrange lay educational cancer meetings and serve as liaison committees between local medical societies and the division of cancer control of the state health department.

The committee also agreed, since 72 per cent of the people of West Virginia live in rural areas, that diagnostic clinics should be held every three or four months in rural communities. The question of care of terminal cancer cases was discussed in detail, and it was pointed out that, through joint agreement with the DPA, whenever a needy cancer patient is termed incurable, the DPA will render routine medical care, including hospitalization, under its medical and hospital program whenever such an individual is eligible to receive care from the department.

The committee agreed that the terminal cancer case is the responsibility of the local community, aided by the DPA or private welfare agencies. It was agreed that the division of cancer control should carry out its four-point program of education, both lay and professional, aiding in the establishment of tumor clinics, extending assistance for tissue diagnosis to needy cancer patients, and providing treatment for such patients whenever the prognosis is favorable.

TUMOR CLINIC AT MARTINSBURG

A tumor diagnostic clinic was held in May at the Kings Daughters Hospital, in Martinsburg, by the Eastern Panhandle Medical Society in cooperation with the local field army of the West Virginia Cancer Society. Dr. William Neill, of the Kelly Clinic in Baltimore, was the clinician. A total of twenty-three cases were examined, the patients being referred by their family physicians, who in most cases accompanied them. The members of the field army were hosts at a luncheon for the doctors and interested laymen. Doctor Neill and Dr. Paul R. Gerhardt, director of the division of cancer control of the state health department, were the guest speakers.

NEW TUMOR CLINIC IN CHARLESTON

The medical staff of the Charleston General Hospital, at Charleston, is conducting a free tumor clinic each Wednesday at ten-thirty o'clock. An invitation has been extended to physicians generally to attend or refer patients to the clinic.

ADDRESSES WANTED

Copies of the West Virginia Medical Journal addressed to a number of members in the military service have been returned, marked "Address Unknown." It is requested that information concerning the present address of any of the following doctors be furnished the headquarters office of the West Virginia State Medical Association, Box 1031, Charleston 24, West Virginia:

Aliff, Robert C., Charleston
Ashman, Hyman, Gallagher
Becker, Philip L., Kimberly
Bevacqua, Wm. A., Parkersburg
Boggs, W. C., Wheeling
Bruce, Thomas H., New Cumberland
Butterfield, Donald L., Milburn
Cardey, Norman L., Winona
Carlson, Fred. B., Charleston
Chandler, C. B., Iaeger
Conrad, H. A., Elkins
Derkach, Stephen L., Glen Rogers
Dodson, Ross, Huntington
Feldman, John L., Longacre
Garred, Emery W., Milton
Gaskel, J. C., Williamson
Giffin, T. C., Keyser
Greenberg, Ralph C., Masontown
Groves, Owen A., Charleston
Hess, D. S., Shinnston
Jones, C. T., Pemberton
Lamb, Robert M., Winona
Mangus, J. E., Pineville
McIlvaine, Wm. E., Moundsville
Neal, W. L., Huntington
Nolan, Lewis E., Montgomery
Prioletti, Vincent, Weirton
Riheldaffer, W. H., Clarksburg
Smith, R. G., Beckley
Stevens, W. R., Kimball
Todd, L. B., Quinwood
Vaughan, Paul E., Beckley
Walters, John W., Wheeling
Ward, Harold W., Sutton
Warman, W. M., Morgantown
Weisman, Samuel, Parsons
Wiser, H. J., Bluefield
Woolwine, J. H., Jr., Tams
Wornal, L. S., Shinnston

DR. COVALT AWARDED LEGION OF MERIT

Col. Donald A. Covalt (MC), who was a guest speaker at the rehabilitation dinner sponsored by the American Legion, held in connection with the annual meeting of the West Virginia State Medical Association, at Huntington, in May, has been awarded the Legion of Merit for his services with the Army Air Forces.

Doctor Covalt is assistant medical director of the Medical Rehabilitation Division of the Veterans Administration, and is located in Washington, D. C.

SOUTHERN MEDICAL AT MIAMI

The annual meeting of the Southern Medical Association will be held at Miami, Florida, November 4-7, 1946.

POLIOMYELITIS INSTITUTE HELD AT MORRIS MEMORIAL HOSPITAL

A Poliomyelitis Institute was held at Morris Memorial Hospital for Crippled Children at Milton, May 20-25, 1946. The institute was sponsored by the Division of Medical Services of the DPA, the State Health Department, State Board of Examiners for Nurses, West Virginia Crippled Children's Society, and National Foundation for Infantile Paralysis, in cooperation with the host institution, Morris Memorial Hospital.

Speakers included Dr. Morton A. Seidenfeld, of the National Foundation, New York; Dr. Jessie Wright, University of Pittsburgh School of Medicine; Miss Suzanne Hirt, Medical College of Virginia; Dr. Paul H. Harmon, medical director, Morris Memorial Hospital; Dr. Claude B. Smith and Dr. Randolph L. Anderson, of Charleston; Dr. Francis A. Scott, of Huntington; Mrs. Esther Walraven, RN, supervisor of nursing, DPA; and Dr. Charles C. Hedges, director of communicable diseases of the state health department.

The meeting was held primarily for institutional and private duty nurses, and schools of nursing from Huntington, Charleston, Parkersburg, and Wheeling were represented. The demonstrations of physical therapy were under the supervision of members of the staff at Morris Memorial Hospital. Luncheon was served each day by the Huntington chapter of the National Foundation for Infantile Paralysis. There was an average attendance of forty persons daily.

One of the interesting features of the six-day meeting was a concert by the Morris Memorial rhythm band, which is composed exclusively of crippled children at the hospital. It is said to be the only rhythm band of crippled children in the United States.

CHANGES OF ADDRESS

Failure to receive copies of the West Virginia Medical Journal regularly should be reported without delay in order that the cause may be ascertained and corrected. Whenever possible, duplicate copies will be mailed to members who report failure to receive copies regularly as issued. Address all complaints to the West Virginia Medical Journal, Box 1031, Charleston 24, West Va.

Changes in address should be reported at least ten days prior to the end of the month. The Journal is issued on the first day of the month.

PHC LICENSES 39 DOCTORS

As a result of the examination for licensure conducted by the Public Health Council, at Charleston, April 1-3, 1946, thirty-nine doctors have been licensed to practice in West Virginia.

The following doctors were licensed by examination: David Bachwitt, Charleston; Thomas Blakely Baer, Huntington; Kenneth Dale Bailey, Clarksburg; William Edgar Baldock, Charleston; Frank Matthew Booth, Jr., Huntington; Walter Edward Bundy, Jr., Oak Hill; Robert Roy Donahoe, Washington, D. C.; David Lawrence Ealy, Moundsville; Michael Ignatius Hanna, Charleston; Thomas Sheridan Knapp (in the armed forces);

Frederick Vivian Lilly, Beckley; Franklin William Mallamo, Fairmont; John Mark Moore, Wheeling; Elliot Moses Namay, Charleston; Howard Troy Phillips, Jr., Fairmont; Robert Dudley Pillsbury, Washington, D. C.; William Rufus Rice, Dunbar; Archie Carey Thompson, Charleston; Gordon Livingston Todd, Jr., Princeton; and Eldon Bryant Tucker, Jr., Morgantown.

The following doctors were licensed by reciprocity: Henry Aldis, Shepherdstown; Leonard Allen Bible, Montgomery; Robert Courtney Bock, Charleston; Carl Frederick Breisacher, Charleston; George William Burch, Man; Darrell Arthur Campbell, Chaleston; Cletis Stewart Dorsey, Kingston; Paul Lowell Douglas, Pursglove; John Dee German, Huntington; William James Glass, Jr., Sissonville; Sander Goodman, Huntington; Frank William Gwinn, Alderson; Seldon Rae Hoover, Charleston; Wendell Everett James, Elkins; William Benjamin MacCracken, Huntington; Carl Kenneth Pearlman, Huntington; Hal Waugh Smith, Montgomery; Harlan Aljean Stiles, Huntington; and Reuben Stutch, Boston, Mass.

COMPLETENESS OF BIRTH REGISTRATION

One of the interesting scientific exhibits at the annual meeting of the State Medical Association at Huntington, May 13-15, was arranged by the Vital Statistics Division of the State Health Department. The exhibit showed the average number of children, by counties, per 100 born who were not registered at the time of birth. The number varied from a low of 2.4 per 100 births in Ohio County to a high of 34 per 100 births in Grant County. Several inquiries were made concerning the method used in obtaining the data presented, and in order to answer such questions, the division of vital statistics has released the following explanation:

The data was based on the results of the nationwide birth registration test conducted by the Department of Commerce, Bureau of the Census, from December 1, 1939, to March 31, 1940. During this period, census enumerators visited every home in the state and filled out a special card for all infants who had been born during the test period. These cards were matched with the corresponding birth records on file in the state health department.

In order to match the records, they were first completely alphabetized by the last, first, and middle name of the child, and by county of birth. The birth certificates were alphabetized in the same way. These two groups of records for each county were then matched so far as possible. The birth certificates that remained unmatched at this point were then checked against the death certificates on file in the state health department to determine whether the child had died soon after birth, or before the census enumerators had a chance to get to the home.

The cards that remained unmatched to birth certificates were considered unregistered births, and the percents shown on the exhibits were computed by counties from these cards.

Although this test was conducted in 1940, there is little evidence that birth registration today is materially better than it was at the time of the test.

NEW MEMBERS OF STATE MEDICAL ASSOCIATION ELECTED SINCE JAN. 15

The following is a list of new members of the West Virginia State Medical Association elected by component societies since January 15, 1946:

Barbour-Randolph-Tucker

Burke, C. P. ..... Thomas
**Leonard, C. L. ..... Elkins
Snedegar, Paul ..... Elkins

Cabell

**Baer, Thomas B ..... Huntington
‡Carr, Joel F. ..... Huntington
‡German, John D. ..... Huntington
Goodman, Sander ..... Huntington
Harmon, Paul H. ..... Huntington
**McCracken, Wm. B. ..... Huntington
**Morris, John ..... Huntington
Powell, Lucius L. ..... Huntington
Thomas, M. J. ..... Huntington
‡Wilkinson, Walter R. ..... Huntington

Doddridge

**Freeman, James A., Jr. ..... West Union

Hancock

**Flood, Richard E. ..... Hollidays Cove
Hall, J. E. ..... Newell
**Justice, Edward L. ..... Hollidays Cove

Harrison

**Harrison, Charles S. ..... Clarksburg

Kanawha

Armentrout, Lewis H. ..... Charleston
Breisacher, Carl F. ..... Charleston
**Campbell, D. A. ..... Charleston
**Carter, W. Smoot ..... Charleston
**Jarrett, Marion F. ..... Charleston
Nelson, Geo. O. ..... Nitro
**O'Dell, Richard N. ..... South Charleston
Powell, Charles W. ..... Charleston
**Rossman, Wm. B. ..... Charleston
Stockel, Catherine R. ..... Charleston
Vial, H. R. W. ..... Charleston

Logan

Dalton, Horace M. ..... Logan
**Kizinski, Alexander B. ..... Logan

Marion

Hobbs, Melford LeRoy ..... Fairmont
**Lawson, William Thomas ..... Fairmont

Mercer

**Cunningham, Raymond ..... Bluefield
**Gatherum, Robert ..... Bluefield
Neale, Richard C. ..... Bluefield
**Scott, Charles M. ..... Bluefield

Monongalia

Pride, Maynard ..... Morgantown

McDowell

Coleman, Herbert M. ..... Iaeger

Ohio

Moore, John Mark ..... Wheeling
**Palmer, David W. ..... Wheeling
**Pickar, Daniel N. ..... Wheeling
**Purpura, Anthony J. ..... Wheeling

Parkersburg Academy

**Goff, S. W. ..... Parkersburg
Sheridan, Richard ..... Parkersburg

Preston

‡Davis, D. R. ..... Kingwood
**Watkins, David A. ..... Masontown

Taylor

Campbell, O. S. ..... Grafton

‡In Military Service.
**Released from Military Service.

Veterans Care

Important instructions for fee-designated physicians are incorporated in a release issued by the Veterans Administration Regional Office at Huntington under date of June 1, 1946. The information is of paramount interest and value to all members of the State Medical Association participating in the Veterans Care Program. For this reason, the release is printed in full as follows:

Out-Patient Treatment

The following veterans are potentially eligible for out-patient treatment at the expense of the Veterans Administration:

1. Ex-members of the military or naval forces suffering from diseases or injuries, requiring treatment, which have been determined by the Veterans Administration to be service connected.

2. An associated condition which while not attributable to service, has been medically determined by the Veterans Administration to be aggravating the service connected disability, when treatment of such associated condition may be reasonably expected to improve the service connected condition.

3. Veterans who have filed claims which are pending adjudication, may receive out-patient treatment for conditions which present prima facie evidence of being service connected if approval is secured from the Chief Medical Officer. To avoid misunderstanding prior authority should be secured except in case of emergency.

4. Veterans who are suffering from malaria, may be given treatment for malaria if their discharge or other evidence shows they have had tropical service.

5. Veterans who are vocational trainees under Public 16, 78th Congress may be supplied treatment for any condition whether service connected or non-service connected, which is necessary to prevent interruption of their training. Prior authorization is necessary. Veterans in training or receiving education under Public 346, 78th Congress are entitled to Out-Patient treatment for Service Connected Disabilities Only.

The following are conditions which prevent authorization of out-patient treatment for service connected disabilities:

1. A claimant who has been discharged from a hospital for a disciplinary reason is not entitled to out-patient treatment by a designated physician during the disciplinary period (which is three months for the first offense and six months for the second offense). He may, however, receive out-patient treatment at the Regional Office providing he pays his own transportation.

2. When a veteran applies for out-patient treatment, and it is found he is in need of hospitalization, he will not be entitled to out-patient treatment if he refused hospitalization.

The only exception to the above is when the veteran is in need of treatment for a service disability that is declared to be a medical emergency. He will then be treated during the period of the emergency, after which time, if he is still in need o. hospitalization and he refuses, no further authorization for out-patient treatment will be granted.

The following data is important and should b given careful consideration:

When an alleged veteran applies for the first time on his own initiative, you should ask him to show his certificate of discharge, or a certificate in lieu, and record accurately therefrom the rank and organization; dates of enlistment and discharge and the character of discharge (honorable, not dishonorable and any disability noted). If he has no such exhibits, ask him to show any letters received fron. the Veterans Administration furnishing at least prima facie evidence that the applicant is an ex-member of the military or naval forces. These exhibits will serve as a means of identification, but will not entitle him to authorized out-patient treatment.

1. If such an applicant's condition is not emergent, and immediate or prima facie eligibility is not apparent, you will secure authorization from the Regional Office before starting treatment.

2. If the applicant's condition, while emergent, permits the time necessary to procure authorization, you will telephone or telegraph the Chief Medical Officer at the Regional Office in Huntington 1, W. Va., or his designate for authority, giving the full name and address, C-number if any, diagnosis and condition of the applicant and data as to rank, organization, dates of enlistment and discharge and character of discharge. By so doing you will be promptly informed as to his eligibility for out-patient treatment.

3. If the applicant's condition is so emergent that his life would be jeopardized in awaiting telegraph or telephone authorization, you may render the emergency treatment, provided you notify the station concerned by forwarding Form 2690, which must be in the mails not later than five days after the treatment is rendered. If claimant is eligible,

authorization will be issued covering the emergency treatment and such additional treatments as were requested or considered necessary. If the applicant is not entitled, you will be notified.

4. It should be distinctly understood that the rendering of emergency treatment is on your responsibility. Authorization for such treatment can be granted when the case is reported within five days and eligibility exists. Authorization cannot be retroactively dated and cannot be granted if the applicant is not eligible.

You should submit at the end of the month on each claimant treated a consolidated certified bill including all authorized services rendered during a period of one month. Two or more separate bills covering authorized services rendered at different times during the month should not be submitted on the same claimant. Bills must be submitted to the Regional Office each month and not later than the 5th of the month following the one in which the services were rendered.

Forms 2690 and 2690a

Form 2690 (Designated Physician's Request for Authority for Treatment), is to be used in requesting any type of authority (in either an emergent or non-emergent case) or for continuance of treatment. This form, in requesting initial authority to begin treatment will be submitted as occasion requires; provided that in emergent cases, when treatment has been rendered, it is forwarded within five days of the giving of such emergency treatment, so that such service, if the patient be eligible therefor, may be covered by authorization. Form 2690, when used to request continuance of a series of treatment that has previously been authorized, will be mailed on the 23rd of each month, so that the Chief Medical Officer or his designate will be in receipt of it by the first of the succeeding month, and can prepare and issue Form 2639, authorizing continuance of treatment in cases which he determines it is needed. It is very necessary to note on the Form 2690 whether the service is for home visits or office calls.

Form 2690a is to be used to report the treatments rendered. It is to be mailed to this office promptly at the end of each month by the designated physicians who have rendered services for the reported month. The bill for the service should be attached to this form.

A strict adherence to the proper execution of these forms with their prompt submittance will greatly assist the Regional Office and will assure you of the proper authorization and payment for services rendered.

In cases requiring medicines or supplies, the designated physician should forward the prescription to the Regional Office where it will be filled by the druggist and promptly mailed to the claimant. Refills should be made only upon the request of the designated physician.

Hospitalization of veterans may be made in private or contract hospital for veterans having:

(a) Service connected conditions, which condition requires hospitalization.

(b) Veterans with pending claims who have prima facie evidence of a service connected condition which requires hospitalization. However, prior authority should always be secured for such cases.

In case of emergency veterans who have pending claims and prima facie evidence of service connection approved by the Chief Medical Officer may be hospitalized, and authority secured by phone or telegraph from the Regional Office of the Veterans Administration not later than 72 hours after hospitalization. However, it should be understood that unless the conditions mentioned in this paragraph are met that the expenses of hospitalization cannot be paid. It will distinctly be understood and the veteran will be so informed that the furnishing of emergency hospitalization or out-patient treatment does not imply that, for pension purposes, the decision on his claim will be in favor of service connection.

In reporting on Form 2690 you should indicate in the space provided, whether hospitalization is needed. If the applicant is in need of emergency hospitalization the Chief Medical Officer or his designate should be informed by telephone or telegraph as responsibility for such hospitalization will not be assumed by the Veterans Administration in cases not meeting requirements for hospitalization in private or contract hospitals.

Maximum Fees Allowable

The maximum fees allowable for general treatments or examinations of veterans are: out-patient office treatments, $3.00 each; out-patient home treatments, $3.00 each; examinations to determine need for out-patient treatment, $3.00 each if examination is made between 7:00 a. m. and 7:00 p. m.; $5.00 each if examination is made between 7:00 p. m. and 7:00 a. m.; complete physical examination for pension, compensation or government insurance, $7.50 each. Fees for special examinations, laboratory examinations and x-rays, will be listed on the Form 2639, Letter of Authority for Medical Service on Fee basis, whenever such special examinations are required.

In addition to the fee for examination or treatment, there may also be authorized a fee of 75¢ per mile one way when responding to calls in rural districts.

Payment of $3.00 may also be paid for physical examination on a "P 10" Application for Hospitalization or Domiciliary care. If a veteran presents himself to you not in connection with out-patient treatment, and applies for hospitalization or domiciliary care the P-10 application should be filled out, and a definite recommendation made as to need for hospitalization or domiciliary care, and if possible a definite diagnosis should be made. Upon completion of the P-10 form, it should be forwarded

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Physical Examination

1. Examinations for pension, compensation or adjudication purposes are made on the blue Form 2545. Care should be taken to fill out each number.

2. Questions 7 and 8 should be answered in some detail.

3. Question 9, which is the present complaint of patient, should be signed by the veteran.

4. Questions 12 and 13, which deal with E.E.N.T. are usually sufficiently answered, unless patient has a definite condition falling in this category, if vision by snellen chart and hearing distance for spoken voice are given.

Questions 14 and 30, inclusively, are usually answered sufficiently by one word indicating they are normal or no pathological condition is found, unless patient has some abnormality or disease, in which case the findings should be recorded in detail.

6. Definite diagnoses should be made and recorded under Number 31.

Designated physicians who do not have a clear understanding of the necessary procedure in the handling of cases are requested to write to the Chief Medical Officer of the Huntington Regional Office for further instructions.

Doctors in the Service

Dr. F. Eugene Amick, of Charleston, was recently released from the Army Medical Corps with the rank of Captain. He has accepted a two-year residency in pediatrics at Gallinger Municipal Hospital, Washington, D. C.

* * *

Lt. Walter R. Wilkinson, of Huntington, has reported for active duty in the Army Medical Corps. He has been assigned to the 4th Base Training School at Fort Sam Houston, Texas.

* * *

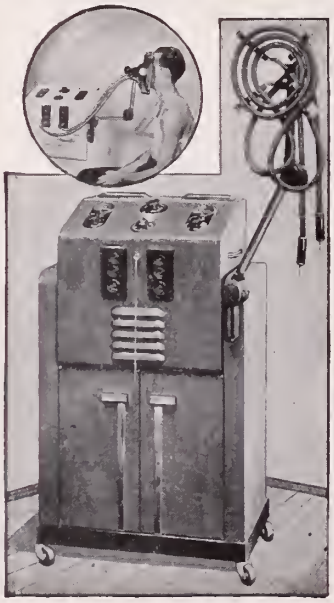
Capt. L. H. Nefflen, of Elkins, who has been located at Fort Leavenworth, Kansas, has been released from the Army Medical Corps, and has returned to his home at Elkins.

* * *

Lt. Col. Louis E. Baron, of Mannington, has been released from military service and will resume practice in his home city early in July. Colonel Baron spent ten months overseas in the Philippines and Japan, serving as executive officer of the 27th

Wappler Short Wave Diathermy Units

The Wappler Short Wave Diathermy Unit was not planned to be just another low priced unit. The objective was a machine that would give peak performance and power, that would afford the doctor convenience of application — a machine that would induce temperatures in the deep tissues attainable only with the most expensive units. Of equal importance was the desire to design and engineer a model of enduring beauty, rugged construction and superlative workmanship insuring years of completely satisfactory operation.



Simplicity of treatment application is one of the many convenience features appreciated by both patient and operator. The condenser pads, for instance, can be shaped to body contours so that straps or tapes are unnecessary. Pads are strengthened at the cord junction, the most vulnerable point. No expense has been spared in making the Wappler Inductance Cable—it provides true inductance heating effects as opposed to the split cable type.

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A. A leading pediatrician has pointed out that even in the early months of life infants are able to detect minute differences in flavor. The appealing palatability of Campbell's Strained Baby Soups is, therefore, an advantage. It should further be pointed out that all the "tastes" in these soups are the wholly natural ones of the meats, vegetables and cereals used.

Q. Why are the different ingredients selected?

A. Campbell's Strained Baby Soups are planned to provide a balance in nutrients to supplement the daily milk diet. Since it takes many different foods to supply the approximately 40 nutrients needed for infant development and energy, we use vegetables and a cereal in preparing each of the four meat soups. Flavor is improved, too. For instance, liver alone has too strong a taste for some babies, but blended with vegetables, palatability is enhanced. It should also be noted that these soups are intended for use as early in normal infancy as any other strained baby foods.

Q. What measures are taken to conserve food constituents?

A. In preparing these Baby Soups, Campbell's have developed a method, based on the latest scientific knowledge, which retains the minerals and efficiently conserves the vitamins.

A comprehensive analysis of each soup may be had upon request to Campbell Soup Company, Camden, New Jersey.

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and 54th General Hospitals, and the 361st Station Hospital. All three units operated at the site of the Do-ai Memorial Hospital, in Tokyo.

* * *

Lt. Col. James L. Blanton, of Fairmont, who was released from military service early this year, is now a senior member of the medical department at the Clifton Springs Sanitarium and Clinic, Clifton Springs, New York. He is in charge of the Department of Arthritis and Allergy.

* * *

Lt. Col. Howard G. Weiler, MC, is on terminal leave following his return from overseas duty, where he served with the 315th General Hospital on Luzon during the past year. He has reopened his former offices in the Central Union Building, at Wheeling, where he has resumed the practice of his specialty of orthopedic surgery.

* * *

Major Wm. L. Claiborne, of Huntington, has been released from military service and located for the practice of medicine at Ansted.

* * *

Commander C. Truman Thompson, of Morgantown, who has been assigned to the U. S. Naval Hospital at Bethesda, Maryland, is on terminal leave and will soon resume practice in his home community.

* * *

Dr. Thomas B. Baer, of Huntington, has been released from military service and opened offices for general practice in the First Huntington National Bank Building.

* * *

Capt. Jack T. Gocke, of Clarksburg, who has been with the Army Medical Corps in Japan, has been released from the service and has located for the practice of his profession in the Gore Hotel Building, at Clarksburg.

Obituaries

ROBERT WYLIE CORBITT, M. D.

Dr. Robert Wylie Corbitt, 65, of Parkersburg, died suddenly December 11, 1945, as a result of a cerebral hemorrhage.

Doctor Corbitt graduated from Baltimore Medical College in 1905, and was licensed to practice medicine in West Virginia the preceding year. He was a member of the Academy of Medicine of Parkersburg, the West Virginia State Medical Association, and the American Medical Association.

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THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII AUGUST, 1946 No. 8

THE ANEMIAS ASSOCIATED WITH NUTRITIONAL DISORDERS*

By CARL F. VILTER, M. D. and TOM D. SPIES, M. D.**
Birmingham, Alabama

Disordered nutrition results in a number of clinical signs and symptoms which the physician familiarly associates with pellagra, beriberi, scurvy, riboflavin deficiency, protein deficiency and similar syndromes. With the advances in the study of nutritive failure the accumulation of further data confirms the clinical impression that anemia is not the least of the manifestations resulting from a poor dietary. A "secondary" anemia was early associated with the pellagra syndrome[1] and with scurvy[2,3], but the morphologic and causative natures of such were ill-defined. Later it was recognized that normocytic, microcytic and macrocytic anemias[4,5,6] occurred concomitantly with pellagra and B-complex deficiencies, that in many instances these were due to deficiency in specific food substances[7,8,9]. Similarly the relatively rare anemia of scurvy has been studied[10], yielding information concerning morphology and pathologic physiology.

Observation of a large group of persons with nutritive failure at the Nutrition Clinic, Birmingham, Alabama, has shown that the three morphologic groups of anemia that are possible appear with considerable regularity, namely: the normocytic, microcytic and macrocytic types. In some instances these were directly related to a poor dietary, in a few they appeared to be secondary to physiologic changes resulting from B-complex deficiency; others were totally unrelated to vitamin deficiency.

Normocytic, Normochromic Anemia: The normocytic normochromic group has not thus far been analyzed. It is apparent that some of these result from chronic renal insufficiency, neoplasms, chronic infections and degenerative diseases. The relation of some instances to poor nutrition has not been established, but is suspected. None is related to acute blood loss, the most common cause of this anemia in the general population. The anemia in this group is usually mild, the hemoglobin and erythrocyte counts seldom falling below 11 Gm. and 3.5 millions respectively.

The anemia of scurvy is usually of the normocytic or moderately macrocytic type and, though rare, must be considered regularly in association with nutritional disease. Usually occurring with advanced clinical signs of scurvy in the adult such as spongy, purple, bleeding gums, large subcutaneous and cutaneous ecchymoses and perifollicular hemorrhages, it may occasionally occur without these characteristic signs[11]. The anemia may be of any degree and when severe is frequently associated with a moderate degree of reticulocytosis ranging from 7 to 15 per cent. This phenomenon, in addition to urobilinogenuria, mild degrees of icterus (15 to 30 icterus index) and a normoblastic marrow, has suggested that the anemia is hemolytic in origin. Alterations in the fragility of the cells or presence of agglutinins, however, have not been demonstrated

*Presented before the Cabell County Medical Society, at Huntington, West Virginia, November 8, 1945.

**University of Cincinnati Studies in Nutrition at the Hillman Hospital, Birmingham, Alabama. From the Department of Medicine, University of Cincinnati College of Medicine. These studies were made possible by a grant from the Eli Lilly Company. Valuable assistance was afforded by Miss Monette Springer, Mrs. Mary Koch and Mrs. Margaret Caldwell.

under these conditions. Since the icterus occurs even in the absence of massive interstitial hemorrhage, it cannot be attributed to extravascular hemolysis. Treatment with iron or liver extract is entirely ineffective. Ascorbic acid in doses of 200 to 500 mg. daily, orally or parenterally, causes no further reticulocytosis. In seven to ten days after therapy is begun, however, the percentage of reticulocytosis falls into normal range; the red cells and hemoglobin show a rapid increase so that in three weeks the blood picture approaches normal. Observations on other types of anemia seem to indicate that vitamin C plays a subsidiary role in hematopoiesis in some macrocytic anemias.

Microcytic, Hypochromic Anemia: A large group of patients with nutritive failure show evidence of this type of anemia in which the erythrocyte level is but slightly lowered and the hemoglobin is greatly reduced. The great majority of these patients are women, and since this type of anemia is known to follow chronic blood loss and suboptimal intake of iron, menorrhagia has been blamed as the initiating etiology. This has been called the anemia of chronic blood loss and of iron deficiency. Under classic conditions, however, the serum iron is low in iron deficiency anemia. This was not invariably true in the group of individuals we studied. Many of the women, moreover, were as far as ten to twenty years past the menopause, did not recall menorrhagia and had no other bleeding phenomena; occasionally following remission from iron there was relapse among these older patients without further known blood loss.

Among these individuals with microcytic anemia were a number, all female, who might be fitted with the Plummer-Vinson syndrome[12,13], or sideropenic dysphagia[14]. These patients, in addition to evident pallor, complained of burning of the tongue and difficulty in swallowing. Some had been grinding their food for years. The tongue usually showed marked atrophy of papillae, was without the normal coating and appeared smooth, pale and glistening. Sometimes there was an associated cheilosis or angular stomatitis. Nonspecific gastrointestinal complaints such as anorexia, flatulence and constipation were usual. Spoon nails, or choilonychia, were occasionally observed and also a spotty but coalescent brown pigmentation over the face. Fluoroscopic studies of the upper esophagus frequently revealed what appeared to be a constant semilunar membrane partially obstructing the lumen at the level of the fifth or sixth cervical vertebra and an adjacent nar-

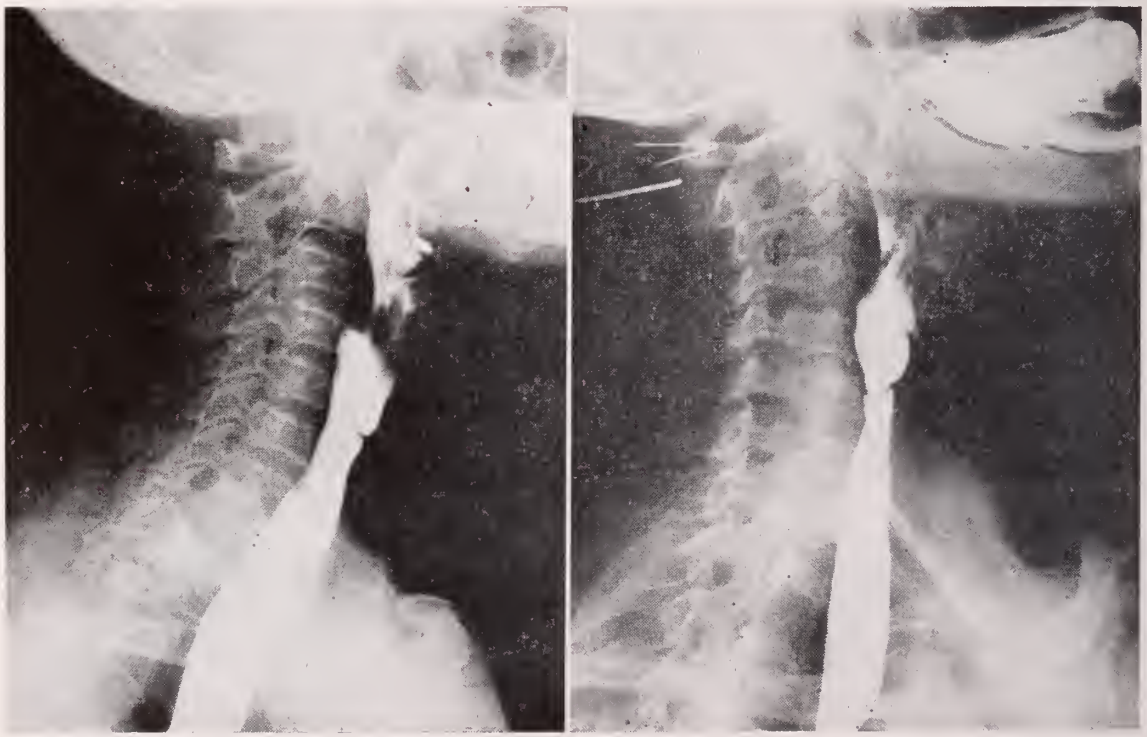

Figure 1. Roentgenograms of the upper esophagus in two cases of dysphagia associated with microcytic hypochromic anemia. Repeated examinations by fluoroscopy with thick barium showed the defects produced by the membranes in the esophagus to be constant.

rowing of the esophagus (figure 1). The membrane was sometimes demonstrable in anemic subjects who experienced no dysphagia. Achlorhydria or hypochlorhydria was usual in the patients with anemia and dysphagia.

There are two controversial theories as to the pathologic physiology of this syndrome; the validity of one or the other depends upon whether the dysphagia antedates the anemia. On the one hand the dysphagia can so alter the dietary that there is iron deficiency and anemia develops; on the other it is possible that the alterations in the esophagus (which might correlate with those in the tongue, lips and nails) are secondary to the anemia or the iron deficiency.

Iron alone is effective in this morphologic type, the microcytic, hypochromic anemia. The administration of liver extract either orally or parenterally in this common anemia is not only an economic waste, but reflects on the intellectual integrity of the physician. Ferrous sulfate or ferrous gluconate, 15 grains (1.0 Gm.) daily, causes complete remission in most instances of this anemia. Concomitant treatment with vitamin B-complex does not augment the regenerative power of iron[7]. Some cases are resistant, particularly those, it seems, with achlorhydria which probably results in poor ionization and absorption of iron[15]. In these it is found necessary to double or treble the dose. In most patients with dysphagia this symptom ameliorates and disappears as the hemoglobin rises. The membrane in the esophagus as visualized fluoroscopically, however, remains unchanged. The dysphagia seems irreversible in an occasional patient who has had the complaint for many years even though other signs and symptoms subside. The burning of the tongue ceases; the nails become more normal in appearance and free acid returns to the gastric secretions in normal amounts. Cheilosis tends to improve, but usually riboflavin must be supplemented to effect complete healing.

Macrocytic, Hyperchromic Anemia: The incidence of macrocytic anemia, characterized by a marked decrease in the erythrocyte count, by large cells well filled with hemoglobin, is high in nutritionally debilitated subjects. This type of anemia is most familiarly associated with addisonian anemia but is also found in pregnancy (pernicious anemia of pregnancy), liver disease, nontropical sprue (idiopathic steatorrhoea), tropical sprue and so-called nutritional macrocytic anemia. The anemias in these conditions probably have a common etiologic basis, namely a deficiency of erythrocyte maturation factor (E. M. F.) found in liver and yeast. In all likelihood this factor is some conjugate of folic acid since we have recently shown that this member of the B-complex is effective therapy in some of these anemias[16,17]. (Unassociated with primary nutritional disturbances are several other types of macrocytic anemia such as occur with hemolytic anemias and bizarre forms of hypoplastic anemia of long duration.) The most common types found in the patients at the Nutrition Clinic in Birmingham are pernicious anemia and nutritional macrocytic anemia. The pathologic physiology and the natural history of these and the methods of differentiation from one another and from sprue have been the subject of a complete report[9]. The following table serves to compare the differential factors:

Nutritional macrocytic anemia seems to occur in consequence of a dietary deficient in animal protein and B-complex over a protracted period. Other factors must play a part since the disorder is not directly or invariably a consequence of strict vegetarianism. Usually the history of repeated attacks of pellagrous glossitis and dermatitis, of diarrhea and of other symptoms of B-complex deficiency antedate by years the onset of the anemia. It would seem that chronic B-complex deficiency may so alter the intestinal mucosa that small amounts of hemopoietic factors in foods cannot be extracted, absorbed or utilized. This might result not only from physical changes in the mucosa, but also from derangement of the normal enzyme systems of digestion. There is reason to believe, too, that alteration may occur in the intestinal flora which may interfere with bacterial synthesis of B-complex vitamins.

The return of all the evidences of normal gastric function during remission or as much as two or three years after remission of nutritional macrocytic anemia has made difficult the immediate differentiation of this type of anemia and pernicious anemia. The laborious testing for intrinsic factor is not always practical and was impossible during the meat rationing period. Consequently we have depended on the clinical differentiation and repeated evaluation of the gastric secretions. In a group of 48 patients with macrocytic anemia observed currently, some of whom have been studied since 1936, there are 8 in whom the exact diagnosis is uncertain. Three who had been tentatively considered as having had pernicious anemia for several years recently showed normal gastric secretions. As in pernicious anemia many of the patients with nutritional macro-

cytic anemia remain ambulatory even when the erythrocyte count falls below one million. Symptoms of other specific deficiencies usually parallel the diarrhea rather than the severity of anemia. Nonspecific gastrointestinal symptoms and diarrhea are common, but free hydrochloric acid is frequently present in the gastric secretion and if absent tends to return at a later date following remission of the anemia.

Remission occurs promptly following the administration of raw beef, yeast, or liver or their extracts, or synthetic folic acid. In contradistinction pernicious anemia with constant achylia gastrica shows a poor response to oral therapy except folic acid. The cure of nutritional macrocytic anemia is seldom followed by relapse provided the dietary is maintained at an optimum level, whereas the necessity for the constant treatment of pernicious anemia is a well recognized feature. Thus it is important to make the differential diagnosis since it determines the necessity for temporary or persistent treatment. At present the treament of macrocytic anemia is dependent upon the parenteral use of commercial liver extracts. Although crude liver extracts are rationally employed as a natural source of vitamin B-complex, refined liver extracts usually should be reserved for the treatment of macrocytic anemia. It seems probable now that oral folic acid may replace parenteral liver extract and facilitate therapy.

Rarely, several factors may operate to produce anemia in patients with nutritive failure. The combination of iron deficiency and "liver" deficiency anemia occurs occasionally. Usually the serum iron is high, however, in "liver" deficiency (mycrocytic) anemia. The serum ascorbic acid level on the other hand is usually low in "liver" deficiency (macrocytic) anemia, regardless of the etiology grouping. This is true in individuals whose diets appear adequate in ascorbic acid and the reason for the low serum levels is obscure. Absorption of this vitamin is not impeded by the altered physiology of the gastrointestinal tract. Immediate excretion is no greater than in normal individuals. In a few instances persons with macrocytic anemia in relapse show a low grade reticulocytosis following large doses of ascorbic acid, suggesting that a deficit in this vitamin may be contributing to the anemia. Evidence of blood regeneration in these patients, however, is not dramatic.

So it appears that in a group of persons with varying degrees of nutritive failure all the possible morphologic varieties of anemia occur. Although

TABLE I

Pernicious Anemia	Nutritional Macrocytic Anemia	Sprue
Deficit of intrinsic factor.	Deficit of extrinsic factor and perhaps later of intrinsic factor, and poor absorption from G. I. tract.	Deficit of extrinsic factor and later of intrinsic factor; poor absorption from G. I. tract.
Achylia constant	May have normal gastric juice. Achylia may disappear following remission.	Usually normal gastric juice.
May have glossitis similar to pellagra.	Frequent history or signs of B-complex, vitamin C and protein deficiency.	Frequent signs of deficiency of B-complex, C, A and D (?) and protein.
Frequently associated with posterolateral sclerosis.	Frequently associated with peripheral neuritis.	Sometimes associated with neuritis.
Occasional diarrhea sometimes alternating with constipation.	Intermittent watery diarrhea. Stools foul smelling, but usually not fatty.	Characteristic voluminous, foul smelling stools, usually diarrheal, containing excessive amounts of fatty acids (as much as 25-80% of dry weight).
Mild icterus. (15-30)	Icterus rare.	Icterus rare.
High serum iron.	Normal serum iron.	Normal or low serum iron (?).
Poor response to oral beef or yeast or their extracts.	Excellent response to oral beef or yeast or their extracts.	Fair response of anemia to oral beef or yeast or their extracts.
Good response to parenteral liver extract or folic acid.	Good response to parenteral liver extract or folic acid.	Good response of anemia to parenteral liver extract or folic acid.
Constant need for liver extract therapy.	Constant liver extract therapy usually unnecessary if diet is improved.	Constant need for liver extract therapy.

statistical evidence is not available, it is evident on clinical grounds that some of these are the direct result of nutritional disease and a part of the deficiency syndrome; others bear no relation. Study of the morphology and the associated symptoms gives a clue to the diagnosis and the proper and specific treatment. It is to be remembered, too, that these types of anemia occur along with others in the general population. Many physicians directing their efforts at other processes of healing do not consciously recognize the presence of anemia until the laboratory data reveal the red cell count under 3 million and the hemoglobin under 11 grams. Restoration of the blood to normal not only yields some subjective results, but aids in the care of primary disease processes. Particularly in nutritional deficiencies remission of the anemia facilitates the return to and maintenance of a normal state of health.

SUMMARY

All morphologic types of anemia are found in patients with nutritive failure. Some of these result from an inadequate intake of specific nutrients, especially extrinsic factor (in macrocytic anemia), iron (in microcytic anemia) and occasionally ascorbic acid and perhaps others (in normocytic anemia). A fairly high incidence of the so-called Plummer-Vinson syndrome is noted in nutritionally deficient patients with iron deficiency anemia.

"Liver factor deficiency" (macrocytic) anemia may be treated specifically with liver extract or synthetic folic acid, iron deficiency anemia with ferrous compounds and the anemia of scurvy with ascorbic acid. Therapeutic combinations of these specific substances for the treatment of recognizable anemias are economically wasteful and have been used only as the result of misconceived advertising and indifference in diagnosis.

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HYPOPROTEINEMIA

The most common, non-pathologic cause of hypoproteinemia is insufficient intake of biologically adequate protein foods such as milk, eggs, meat, fish, cheese and the like. Dramatic illustration of the consequences of severe hypoproteinemia is everywhere evident among liberated prisoners of war and among the starving peoples of Europe and Asia.

Contributing to the development of hypoproteinemia is the intake of a diet deficient not only in good quality protein, but in actual caloric value. In such cases, the protein intake, although adequate, may be diverted to the production of energy because of the lack of sufficient carbohydrate material for this purpose.

The ingestion of a diet low in protein or calories or both may occur not only because of various degrees of food privation but as a result of food fads, dietary restrictions due to illness, lack of appetite, ignorance or neglect.

Experimental proof for the direct relationship between low protein diets and the development of hypoproteinemia resulting from impairment of plasma protein synthesis was demonstrated by Weech and Goettsch. In their studies they found beef serum, egg white, milk and casein to be outstanding in their ability to stimulate regeneration of the plasma proteins.—Borden's Review of Nutrition Research.

TWINS, ONE MACERATED, RETAINED: THE OTHER, NORMAL DELIVERY AT TERM

(CASE REPORT)

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The purpose of this paper is to report a case of twin pregnancy with an unusual complication. A living, normal, full term infant was delivered without evidence of complication until a macerated fetus was found imbedded in the placenta. Eight somewhat similar cases have been reported in the available literature.

The patient, age 19, had had one previous normal delivery of a normal child July 12, 1944, at her home. She was seen by me May 31, 1945. Her last menstrual period had been October 2, 1944, thus making the expected date of delivery July 12, 1945. Her antepartum course thus far had been uneventful. The general physical examination disclosed nothing unusual except the size of the fetus, which was estimated to be that of a 6½ month gestation. The blood pressure was 120 systolic and 70 diastolic. The urine was normal except for a faint trace of albumin. The results of the serological tests were negative. When the patient reported for follow-up June 14, 1945, she was found to have a purulent cervical discharge, smears from which were negative for neisserian organisms. Nevertheless sulfathiazole was given for a period of five days. The antepartum course from then on was normal, the uterus gradually progressing in size. There was no unusual tenderness over the uterus at any time and the fetal head was in the left occipitoposterior position.

On July 6, 1945, the patient reported to the hospital stating that pains had started spontaneously at 3 a. m. The contractions were not sustained and started again in about twelve hours. She was delivered of a full term, living male child at 10:30 a. m., July 7, 1945, following a normal spontaneous delivery, the crown of the head being in the left occipito-anterior position. Nothing unusual was suspected until the placenta was delivered. On examination of the placenta a bonelike structure was felt and upon investigation was found to be a dead, macerated fetus.

The pathological report on the placenta, by Dr. Walter Putschar, was as follows:

"(1) Small macerated, markedly flattened, female fetus, 26 cm. long. Extremities twisted and distorted. Left knee shows separation of the femur epiphysis. Umbilical cord is avulsed, intestines protruding. Scalp is torn on the left side. Head is partly disrupted. There are no malformations present.

(2) Placenta 18 x 14 x 2 cm. showing two compartments separated by a double layer of amniotic membrane. The larger one is 13 cm. in diameter, and shows a cord inserted near the septum 40 cm. long and 1 cm. wide. The lining is smooth and transparent. The smaller one is 6 cm. in diameter and shows a marginal insertion of the cord which is somewhat flattened, brownish-yellow. The lining is entirely thickened, brownish-yellow. On section, placenta of the larger is spongy and dark red; of the smaller portion, solid, greyish-white with some hemorrhagic areas.

(3) Sections from the small portion of the placenta show almost complete necrosis and hyalinization with disseminated calcification. Sections of the cord show complete necrosis.

Diagnosis:

Macerated smaller female twin fetus.

Placenta from twin pregnancy with necrosis of smaller portion."

The length of the fetus, 26 cm., suggests development until about the fifth or sixth month of prenatal life. There are two possibilities: (1) growth and life until about the fifth or sixth month, with death occurring, or (2) stunted and impaired growth over a longer period of time, death occurring at a later date than the suspected fifth or sixth month.

The death of the twin fetus obviously was due to impaired circulation since the umbilical cord insertion was at the extreme edge of the placenta.

Of interest in this case is the fact that a dead twin fetus could be retained over a period of weeks or months without exerting any deleterious or toxic effect on either the mother or the other fetus.

The postpartum course of the mother was entirely uneventful, without temperature elevation. She was discharged from the hospital in good condition.

SUMMARY

A case of twin pregnancy is reported, with the delivery of a living, normal twin and of a dead, macerated twin fetus of approximately 5 to 5½ months' gestation, imbedded in the placenta.

No deleterious effect on either the living twin or the mother was noted.

Note: I wish to thank Dr. Walter Putschar for his interest and cooperation in examining the pathological material.

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TWINNING AND TWINS

Heredity plays a part in the frequency of production of twins. There is considerable evidence to indicate that births of one-egg twins are sporadic occurrences without hereditary basis, whereas the tendency to produce two-egg twins runs in families, and can be transmitted through both the male and female. A careful study of the genealogies of a set of 4-egg quadruplets, born in 1880 and still living in 1940, revealed twinning in both the father's and the mother's lines. Twins occurred seven times in the mother's paternal line and five times in her maternal line. In addition to being the parents of quadruplets, this couple are the grandparents of two pairs of twins.

Greulich reported six pairs of fraternal (two-egg) twins born to the same parents, and cited even more emarkable cases recorded in the literature, including the case of Mary Austin, who during thirty-three years of married life was said to have borne forty-four children—thirteen pairs of twins and six sets of triplets. In 1944 an Argentine woman gave birth to quintuplets—two boys and three girls. The mother had previously aborted triplets, and her sister had had two pairs of twins. The grandmother of the quintuplets had borne one set of twins and one of triplets.

It seems possible that the hereditary nature of the tendency to multiple births may bear some relation to a greater than normal tendency to develop ovaries with multiovular follicles, or to ovulate from both ovaries each month, or perhaps to ovulate simultaneously from two follicles in the same ovary. It is not generally possible to examine the ovaries after the birth of fraternal twins in order to determine the number of corpora lutea present, but a few cases are known in which only a single corpus luteum could be found.—W. C. George, Ph. D., in North Carolina Med. J.

THE ROLE OF THE GENERAL PRACTITIONER IN TUBERCULOSIS CONTROL

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Tuberculosis took the lives of 692 people in West Virginia in 1945. Of this number 370 (53.5 per cent) were persons between the ages of 15 and 44. The tragedy is that these deaths were preventable and that the individuals were in the prime of life, the mainstay of their families and communities.

The cost to the individual, his family, and the community is hard to estimate in dollars and cents since the cost of treatment of persons with tuberculosis is a small item compared with the effect of the loss of earning capacity on the individual's family and the community. It is estimated that over one hundred million dollars are spent annually for the care and treatment of tuberculosis victims in the United States, yet the disease is not controlled.

There were 1,830 new cases of tuberculosis reported in West Virginia last year. The family physician discovered most of these cases and he will continue to do so. We have yet before us, however, the disheartening fact that about 50 per cent of the patients presenting themselves to our state sanatoria are in a far advanced stage of the disease on admission, and only a very small percentage are those minimal cases which offer the best prognosis. Also, a very astounding fact is that 51 per cent of all tuberculosis deaths in 1944 and 59 per cent in 1945 were not previously reported to the health department as such. This is due partly to failure to report known cases, which in itself is a serious fault, but mostly to the fact that in all probability the patients were not known to have had tuberculosis previous to death.

If tuberculosis is to be eradicated, the disease must be discovered early and the patient sent to a sanatorium for treatment in order that he may stand a better chance of cure, and that the disease may not be spread to others. The physician must keep in mind always that tuberculosis, in its early stages, is usually asymptomatic and that even far advanced cases may present few or no abnormal physical signs. For these reasons, private physicians must consider the possibility of tuberculosis in all patients whom they examine. It is not always possible for physicians to obtain 14 by 17 inch celluloid x-ray pictures in the case of each patient. Today, however, it is

possible for a physician to use the tuberculin test routinely and to recommend x-ray examinations for those with positive reactions. Most pediatricians now are employing tuberculin tests routinely, but this group forms only a small proportion of the medical profession. When an infant or pre-school child is found to react positively to tuberculin it is important that all adults closely associated with the child be x-rayed since infants and small children in contact with a case of reinfection tuberculosis may succumb quickly to tuberculous meningitis. The number of contacts of children of this age are limited and all can be found and examined quickly.

The practicing physician will do well to request routinely a laboratory examination of the sputum of each of his patients with pulmonary symptoms. Some of these persons will be found to have tuberculosis. The West Virginia State Hygienic Laboratory is set up to provide free laboratory service for such tests if desired.

Diagnostic problems of the general practitioner are best solved by a routine procedure for use in all doubtful cases. This schedule should consist of a careful history and physical examination, daily temperature readings, repeated sputum examinations, gastric lavages in cases in which sputum tests are negative to culture and, where the diagnosis is still uncertain, tuberculin tests and serial roentgenograms taken at appropriate intervals and, occasionally, in positions other than the usual anteroposterior one.

To enable the physician practicing in rural areas to use these procedures much more generally, the State Department of Health is encouraging the establishment of local diagnostic clinics throughout the state, with a clinician in charge who can accurately interpret films and offer consultation service to the practicing physician. These chest clinics should promote and assist in the postgraduate training of interested private physicians.

Physicians working in clinics can also conserve time by establishing a routine clinical procedure. In the past, many clinic physicians have spent much time in obtaining a complete history and physical examination only to find that the x-ray film was interpreted as negative. The procedure should be reversed. Persons with positive findings then could be separated from those with negative findings, and the physician could concentrate his history taking and clinical examinations on suspicious cases. Thus, a clinic physician would be able to see many more patients and improve the case-finding program.

One of the principal sources of new cases will continue to be the family members and others known to have been in intimate contact with persons suffering from tuberculosis and with persons recently dead of the disease. Tuberculosis is a family epidemic and it naturally follows that one must seek undiscovered cases of the disease in family groups. Therefore, the family physician has a special responsibility in that he should not be content until every exposed member of the group has been examined and x-rayed with a view to finding additional cases.

As a result of mass surveys the practicing physician will be increasingly called on by persons in whose cases the diagnosis of tuberculosis has been made or who are suspected of having tuberculosis. A large proportion of these cases will be minimal, inactive pulmonary tuberculosis, but many will be active or questionably active.

Most of the patients referred to the family physician will be in the apparently well group and will not be willing to stop work. It will be the duty of the private physician to determine the question of activity, and then to recommend sanatorium care, other treatment, or just medical supervision. If it has been decided that the case is questionably active, a plan of subsequent study must be worked out.

The physician often must decide if it is advisable for the patient to continue his occupation. Since physicians have the confidence of their patients they frequently can persuade such individuals to accept decisions that often are in conflict with their wishes. When a person feels well it is difficult for him to realize that he should enter a sanatorium. It is the responsibility of the physician to convince such an individual that hospital care is necessary.

Unfortunately, it may happen that after a physician has made a diagnosis of active pulmonary tuberculosis and has recommended sanatorium care, a sanatorium bed is not available. Under such a circumstance, it is necessary that the physician care for the patient at home. This means that modern sanatorium techniques including bed rest, nursing care, isolation precautions, and general and personal hygiene must be employed. The physician has the responsibility of preventing extension of the disease in the patient, and also of preventing its spread to others in the household. Children especially must be watched closely. It is imperative that they be removed from direct contact if their tuberculin reaction becomes positive. The public health nurse can play an important role in assisting the physician by demonstrating simple methods of isolation tech-

nique and by obtaining examinations of members of the patient's family at frequent intervals.

Many patients returning from sanatoria will have pneumothoraces that will require maintenance for several years. This does not mean that every practitioner must obtain training in the technique of administering pneumothorax although many have become skillful in this procedure. It does mean, however, that as many physicians as possible, in private practice, become acquainted with the technique so that each community will have at least one physician skilled in the special treatment of these patients. Physicians interested in becoming efficient in techniques of pneumothorax may apply for and receive a brief period of training along this line in one of three West Virginia State Sanatoria.

A potent method of case-finding which is now coming into extensive use is the small film technique used by the Armed Forces and various federal, state, local and private agencies. This technique has enabled the x-ray examination to assume the role it deserves as the strongest weapon in the fight against tuberculosis. Standard x-ray procedure with 14 by 17 inch films, unanimously considered the most accurate method of detecting pulmonary tuberculosis, has proved too costly in material and personnel to permit of extensive use.

Since the introduction of mass radiography, case-finding has been used in large population groups without reference to specific foci of infection. This type of program has been so satisfactory that many physicians have advocated that the entire population be examined radiographically at regular intervals. Such a scheme, however, is difficult and does not appear essential for the control of tuberculosis. As in the control of other communicable diseases, it is necessary only to reach a significant proportion of the population within a limited period of time, provided that the groups in the community chosen for survey are those having the highest incidence of clinically important tuberculosis.

Persons employed in industry in West Virginia constitute a sizable group which may be easily reached by mass radiography. The State Department of Health has a photofluorographic unit in operation with which thousands of industrial workers have been x-rayed. The percentage showing x-ray evidence of reinfection tuberculosis, active, questionably active, or inactive, has been approximately 1.4 per cent. This is in close agreement with findings elsewhere. Those cases found have been referred to their private physicians for completion of the diagnosis.

Small film radiography is well adapted to case-finding in our larges general hospitals but because of the expense of the equipment it is not yet feasible for smaller hospitals. Interpretation of the films can be made by the hospital staff of the x-ray department and the hospital facilities can be used for completing clinical examinations and providing care and treatment for ambulatory patients.

The procedure also provides several valuable by-products. Increased accuracy in the clinical diagnosis of chest disease is obtained. Non-tuberculous disease is detected more quickly than before. Finally, and of particular importance, employes and nurses in contact with patients avoid exposure to those who have communicable tuberculosis. From 1 to 3 per cent of general hospital admissions have been found to have clinically significant tuberculosis and as high as 10 per cent show abnormal roentgenographic findings.

Hospitals for the mentally ill are ideal centers for mass radiography procedures. In West Virginia there are 4,326 beds currently available in mental hospitals. In mental hospitals surveyed elsewhere 4 to 10 per cent have shown evidence of reinfection tuberculosis.

Community surveys now are being conducted in different places in the United States with great success. A great deal of time and effort on the part of the local community must precede such a survey to assure a good response, and the local physicians must be prepared to complete the diagnosis and recommend treatment in cases found.

Little is to be gained by a tuberculin testing survey prior to a mass x-ray survey and valuable time is lost by repeated interruptions of work. The tuberculin test has a definite place in the practice of the private physician and it is recognized that tuberculin testing surveys of school children have great educational value. They are disappointing, however, as a means of finding many infectious patients, and the cost of finding these cases is extremely high. It is better to concentrate these same efforts on the tuberculin testing of the family of known cases and of others in contact with known cases. Tuberculin testing is similarly unsatisfactory for the examination of adult groups in which the incidence of positive reactors is high (e. g., older adults in large industries).

As gratifying as it is to know that technical developments provide equipment which can be used to

discover the disease in its early stages, it is apparent that the mere discovery of the disease will not stop the spread of tuberculosis. Once tuberculosis is discovered, the patient must receive proper care to arrest the disease and to prevent its spread.

The benefit of early diagnosis of pulmonary tuberculosis can be realized only if an adequate number of sanatorium beds are available for treatment of those with remedial disease and for isolation of the infectious patient. These institutions must be supplemented by conveniently located chest clinics, generous public health nursing services, and accessible laboratory facilities.

In West Virginia there are 1,355 beds available for the treatment of tuberculous patients. This is slightly less than two beds per annual death, which is somewhat under the recommended minimum of two and one-half to three beds per annual death. It is probable, with the increased emphasis on case-finding and sanatorium care, that West Virginia will have use for even more than that number of beds. There is a great need for more beds for Negro patients. At present there are only 125 beds for colored patients compared with 112 deaths in 1945. There are 1.1 beds per annual death for colored patients while 2.1 beds per annual death are available for white.

Sir William Osler referred to tuberculosis as a social problem with a medical aspect. The problem of patients leaving sanatoria against their physician's advice has been an acute one in West Virginia for years. It is more likely that the reasons are social and financial rather than medical. Accordingly, a sound medical program must be complemented by a generous plan of public assistance, particularly for families of dependent tuberculosis patients. If this is not done, full benefits will not be realized from other phases of the program and especially from sanatorium care.

Individual physicians also can stimulate case-finding and follow-up procedures by assisting voluntary and official agencies in obtaining the help of the whole medical profession for such programs. When funds for tuberculosis control are limited in a given community, great care must be exercised in the choice of case-finding procedures. Those methods should be selected which will reach the greatest number of people in the shortest possible time. Care should be taken to limit mass x-raying to age and population groups in which the incidence of clinically significant tuberculosis is highest.

The general practitioner of medicine has a leading role in our fight against tuberculosis. Only with his active support can the community achieve the good results which modern tuberculosis control methods offer. With the improvement and expansion of our state and local health departments additional facilities will be available to assist the general practitioner in this task. This joint effort will find its reward in the steady and progressive decrease in the morbidity and mortality from this preventable disease.

THORACIC SURGERY

Before the first World War, surgical operations on the thorax were, with a few vague exceptions, confined to resection of ribs, artificial pneumothorax or the occasional successful suturing of the heart after a knife wound. With the war came great chest injuries and the wide prevalence of empyema following the measles pneumonias. As in the recent war, medical men working under the stress of extraordinary circumstances developed new ways of treating chest injuries and the empyemas. The thorax, which was, at the time, the last and only large area of the human body that the surgeon had been reluctant to invade, soon became as accessible to him as the abdomen had been for years. As a result, Thoracic Surgery, a new great division of general surgery, came into existence.

Rapid and astonishing were the achievements in this new field. The extensive damage to the pleural cavity as a result of trauma and the virulent empyemas demonstrated that the chest cavity could be more widely opened and explored without special pressure appliances for the maintenance of respiration than was ever believed possible. New operations for collapse therapy in the treatment of tuberculosis were developed, the pericardial sac was aspirated when large effusions threatened life from cardiac embarrassment almost as easily and safely as pleural punctures, and surgery of the heart became a reality. The American Association for Thoracic Surgery was organized as the new division of surgery expanded and the names of Archibald of Montreal, Cutler of Cleveland, Graham of St. Louis, Hedbloom of Madison, Col. Keller of Walter Reed, Lerch of St. Paul, Muller of Philadelphia, Torek of New York and Lilienthal and others became familiar as pioneers. Many other names have been added and lobectomies and pneumonectomies have now made it possible greatly to prolong lives of patients with pulmonary malignancies.—International Medical Digest.

SMALLPOX AT LOWEST EBB

According to statisticians of the Metropolitan Life Insurance Company, smallpox reached its lowest ebb in the United States in 1945, when but 346 cases were reported for the entire country. The District of Columbia and 13 states, including West Virginia, were completely free of the disease during that period.

The steady decline of the disease is strikingly brought out by the statisticians by contrasting 1945's 346 cases with 48,920 cases reported in the United States as recently as 1930.

INTRACEREBRAL CONCUSSION HEMORRHAGES

(REPORT OF CASE WITH AUTOPSY)

By J. FOSTER CARR, M. D., and S. WERTHAMMER, M. D.
Huntington, West Virginia

In 1924 Cassasa reported five fatal cases of cranial traumatism without fractures of the skull or lacerations of the scalp. Autopsy showed only multiple miliary hemorrhages scattered throughout the brain parenchyma. Cassasa considered these punctate hemorrhages the significant pathological changes after concussion of the brain and felt that this type of lesion was rather rare and not sufficiently appreciated by the clinician. He could find only five cases over a period of ten years on record in the office of the chief medical examiner of New York County.

Martland and Beling in 1929 reported a series of 309 autopsies disclosing traumatic fatal cerebral hemorrhage and found multiple petechial hemorrhages without skull fracture in nine cases (2.9 per cent).

Gurdjian, Webster and Arnkoff in 1943 published their findings in a series of 151 cases of acute craniocerebral trauma which showed nineteen cases (5.9 per cent) of small multiple cerebral hemorrhages without gross lesions of the skull.

The pathogenesis of the concussion hemorrhages is still disputed. A logical and sensible theory is that of Cassasa. His explanation of the mechanism of concussion hemorrhages postulates the anatomical existence of perivascular lymph spaces in the brain. Some histologists deny the presence of such perivascular lymph spaces.

According to Cassasa, the small hemorrhages following concussion of the brain are due to laceration of the brain capillaries, or small veins, because of sudden overfilling of the perivascular lymph spaces by cerebrospinal fluid. In concussion there is a sudden temporary change of the shape of the skull and the cerebrospinal fluid is driven into the sulci of the brain and from there into the perivascular spaces. The blood vessels are suspended by a fibrillar attachment which traverses the perivascular spaces. If cerebrospinal fluid is suddenly forced into the perivascular spaces, these fibers tear, thus lacerating the vessel wall. When the skull is fractured, this type of hemorrhage rarely occurs as the intracranial pressure is released and distributed.

The clinical picture of concussion hemorrhages is that of a short, lucid interval followed by irritability, sometimes increase of deep reflexes, and finally unconsciousness.

Cases of this type are rather uncommon, and if encountered, present great problems of differential diagnosis with intracranial hemorrhage, in which case surgical intervention is to be considered.

CASE REPORT

G. E. C., white male, married, carpenter, 59 years old, was struck by a passing automobile while walking on the highway. One and one-half hours later he was admitted to the Chesapeake & Ohio Hospital in Huntington.

Physical examination revealed the patient to be well developed and apparently in shock. The skin was cold and clammy. The mental state was dazed to the extent that he could not answer questions as to his address or relatives. Inspection of the integument showed small lacerations of the skin over the bridge of the nose, occiput and chin. There was no exposure of bone at any point. No blood was seen in the ear canals, nostrils, mouth, or external urethral orifice. The head was of normal contour and no depression in the skull was felt. The pupils were small but of equal size and shape and reacted promptly to light and accommodation. There was no rigidity of the neck nor was there pain or muscular spasm on motion.

The chest wall appeared normal and there were no deformities indicating rib fractures. The lungs were clear on percussion and auscultation. The respiration rate was 35, and the axillary temperature 99 F. The rhythm of the heart was regular and there were no murmurs. There was no cardiac enlargement on percussion. The pulse rate was 90 and the blood pressure was 68 systolic and 40 diastolic.

Examination of abdomen, genitalia and back was negative. The deep and superficial reflexes were intact and no pathological reflexes were noted.

Large subdermal hematomata were found in the middle of the right thigh and of the right lower leg. On examination abnormal mobility and crepitation could be produced in these areas.

X-ray examination of the lower extremities showed comminuted fractures of the upper third of the right tibia and fibula and of the midshaft of the right femur. There was a simple fracture of the midportion of the left fibula.

Antishock therapy was instituted and the patient received altogether 1500 cc. of plasma and 500 cc.

of whole blood, besides stimulants. His blood pressure rose to 100 systolic and 60 diastolic. Under pentothal sodium anesthesia the fractured lower extremities were splinted and the right femur was put in traction by means of a Kirschner wire.

The next day, the patient was rational and complained of pain in the right extremity. He voided spontaneously and examination of the urine showed no abnormalities except sugar (one plus). The administration of penicillin, 15,000 units every three hours, was begun. Around noon of the same day his temperature was 101 F., the respiration and pulse rates increased, and there was involuntary voiding of urine. He gradually became comatose.

An intracranial process was suspected. No localizing neurological symptoms were found nor was there increase of the deep reflexes. The eyegrounds were normal. A spinal tap was done. The spinal fluid pressure was 120 mm. H_2O and the fluid slightly blood tinged. The blood pressure was taken hourly and ranged from 120 to 140 systolic, the diastolic pressure remaining at 70. The red, white and differential blood count did not show significant changes. X-ray of the skull did not reveal a fracture. On the following day the condition of the patient gradually became worse and he progressed into deep coma. A second spinal tap was done and the fluid pressure was 180 mm. H_2O. Microscopic examination showed 300 red blood cells per cmm. Spinal fluid protein was 65 mg. per hundred cc. The Wasserman reaction was negative in blood serum and spinal fluid. There was no change on neurological examination. The patient died on the third hospital day.

POST MORTEM EXAMINATION

Examination of the organs of the thoracic and abdominal cavities was essentially negative. There

Photograph of dissected brain showing petechial hemorrhages in (a) the white substance of the cerebrum, (b) the internal capsule and basal ganglia, (c) the pons, (d) the cerebellum, and (e) the medulla oblongata.

were a few small atelectatic areas in the lower lobe of each lung and the aorta showed a slight degree of arteriosclerosis. Gross examination of blood from the pulmonary artery and from the cut surface of the lungs did not show any fat droplets. Frozen sections of the lung stained with Sudan III did not show any evidence of pulmonary fat embolism. Microscopic examination of the pancreas and suprarenal glands showed no change.

Exploration of the fractures of the right lower extremity showed the bone fragments in good position. There was no sign of infection nor was there injury or thrombosis of any of the greater blood vessels near the fractures.

None of the lacerations of the skin of the head extended beyond the subcutaneous fatty tissue. After exposure of the roof of the skull no fracture was seen and after removal of the brain no fracture of the base of the skull was found. There was no epidural hematoma nor large subdural hemorrhage. There were only a few minute pial hemorrhages. No injury of the cranial sinuses was noted.

The brain weighed 1141 Gm. and showed the gyri flattened and sulci narrowed. The cerebellum showed marked pressure cones. Scattered throughout the brain parenchyma were numerous hemorrhagic spots ranging in size from less than a pinhead to 1 mm. These hemorrhages could not be washed off or wiped off. They were found chiefly in the white substance of the cerebrum but also in the basal ganglia and internal capsule, in the brain stem, especially in the floor of the fourth ventricle, in the cerebellum and in the medulla. Only an occasional hemorrhagic dot was seen in the grey matter of the cortex.

Microscopic examination of many blocks from different areas of the brain showed typical 'ring hemorrhages' representing a transverse section of a capillary or small vein. The surrounding perivascular space was distended with extravasated red blood cells. Focally, the vessel wall was torn and in some areas the red blood cells infiltrated the surrounding brain tissue. Frozen sections stained with Sudan III ruled out the presence of fat embolism.

COMMENT

The pathological lesions accounting for death were the petechial cerebral hemorrhages which obviously were due to concussion of the brain. The patient also had multiple fractures of the lower extremities, and fat embolism as a cause of the small cerebral hemorrhages had to be considered. Special fat stains on frozen sections of brain and lungs did not show evidence of fat embolism.

It is important to differentiate concussion hemorrhages from large extradural or subdural hematomata as evidently in the first case it would serve no purpose to perform a trephine operation. The symptomatology and clinical course of the described case presented some difficulties in differential diagnosis. It is true that the patient did not exhibit brain compression signs or localizing neurological symptoms which are the rule in cases of extradural or subdural hematomata. However, the spinal fluid was moderately bloody. This could be explained by the presence of small incidental hemorrhages in the pia mater.

The clinical diagnosis of concussion hemorrhages might be missed in cases in which there are no other injuries. Patients who die as the actual result of trauma may be thought to have an infectious disease. The terminal state of fatal concussion hemorrhages, i. e., coma and fever, may suggest a severe infectious process.

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PREVENTIVE GERIATRICS

Today there are 14% more persons alive, over 65, than there were 60 years ago. These people are pron to degenerative diseases, and metabolie diseases takes an increasing toll. The physician of today will do well to consider the science of geriatrics aiming not only to prolong life but to prolong it in comfort. It is not neeessary for a physician to specialize in the strict sense of the word but every general practitioner and internist will want to practice geratology (preventive geriatrics) on his middle aged patients. A physician must think about the condition of his patient not only now but in 15 or 20 years hence.—Eva F. Dodge, M. D., in Medical Woman's World.

THE MENTALLY ILL

As mental illness becomes more and more recognized as simply one of the afflictions of the human organism falling in the general category of other human illness, the old superstitious attitude is gradually clearing away and instead of consigning those mentally ill to segregation in mental hospitals, there is a definite trend toward treatment in general hospitals. This trend will become more generally followed as schools of medicine everywhere teach more and more of psychiatry and pursue further and further intensive research of the type that gets away from a simple study of prominent mental symptoms and diagnoses on that superfieial basis.—W. D. Partlow, M. D., in J. M. A. Alabama.

SURGICAL APPROACH TO THE POSTEROSUPERIOR MEDIASTINUM*

By JOHN S. GAYNOR, M. D., and J. R. CALDWELL, M. D.
Wheeling, West Virginia

During the past few years, tremendous strides have been made in the matter of the surgical approach to the intrathoracic viscera, dependent mainly upon better understanding of the dynamics of the organs involved; likewise, refinements in technique and better preoperative and postoperative supportive care of the patient by means of oxygen, blood replacement, and the use of antibiotics and chemotherapy. The surgical approaches to lesions of the heart, the major vessels, the hila of the lungs and the esophagus have been well standardized.

The purpose of this paper is to call attention to a means of approach to the contents of the posterosuperior mediastinum and to review a case illustrating the facility of approach to surgical lesions arising in this area, especially behind the esophagus and above the arch of the aorta.

Lilienthal, in 1925, proposed a surgical approach to this region by means of the multiple division of ribs posteriorly with shingling of the ribs, one upon another. To this observer, however, the posterior approach offers little in the way of dissection under direct vision, a point which, especially in this region containing such vital structures, is of the essence.

The authors contend no originality in the approach about to be described, yet have seen no reference to it in the literature and desire only to call attention to a means of safely approaching lesions particularly in the posterosuperior mediastinum.

If one elects to approach the mediastinum above the arch of the aorta from the left there are two important structures to be avoided, namely: the recurrent nerve and the thoracic duct. On the other hand, surgical exploration may be performed from the right with little annoyance from these structures and requiring only resection of the azygos vein and proper attention to the right vagus nerve, to give adequate exposure at least as high as the level of the suprasternal notch.

This method of approach obviously is not applicable to intrinsic esophogeal lesions other than low lying diverticula, treated without discontinuity of the esophageal wall, and in this type lesion would seem ideal.

As in all surgery involving the open thorax, proper anesthesia with control of the pulmonary dynamics, replacement and supportive therapy before, during and following the surgical procedure is a *sine qua non.*

CASE REPORT

A 31 year old white female was seen in March, 1940, complaining of dysphagia of some six months' duration. General physical examination revealed an apparently entirely normal woman. However, on contrast studies of the esophagus, the following was observed: The esophagus was displaced to the right and anteriorly by a mass about 2½ inches long with a diameter of about 1 inch. The mass appeared to be smooth, and the esophagus to be encroached upon but not obstructed. The wall of the stomach appeared to be normal.

Diagnosis: Mass posterior and slightly to the right of the esophagus at the level of the transverse arch of the aorta. Nature of mass not definitely determined. Probable neuroblastoma.

Esophagoscopy confirmed the x-ray findings and disproved an intrinsic esophageal lesion. Shortly after the diagnosis was established, one of the authors entered the armed services and the patient was not seen again until January, 1946. In the interim the patient's symptoms had become gradually more marked and she now stated that she had adopted, of necessity, a liquid diet. Upon fluoroscopic and x-ray studies the mass previously described was noted to have become about three times the size it was on examination in 1942. Dysphagia was quite marked, 22 minutes being required for a bolus of barium to pass the tumor mass, as determined by fluoroscopy.

Surgical extirpation was advised and carried out under endotracheal closed anesthesia with a Levine tube in the esophagus for purposes of identification. Posterolateral incision was made on the right with partial mobilization of the scapula. The presenting rib was resected subperiosteally for a distance of 6 inches. The rib above and the one below were transected at the angles allowing for adequate exposure. The pleura was incised and the right lung totally collapsed. A longitudinal incision approximately 4 inches in length was made in the mediastinal pleura. The azygos vein was then resected, giving good exposure of the tumor mass. The right vagus nerve was dissected free and elevated out of the operative field. By sharp and blunt dissection with meticulous hemostasis the tumor mass was separated from the esophagus and surrounding tissues and removed in

*Presented before a staff meeting of the Ohio Valley General Hospital, Wheeling, West Virginia.

toto. The lung was re-expanded every twenty minutes throughout the procedure. The mediastinal pleura was closed with a running suture of No. 0 plain catgut. The parietal pleura was closed with a running stuture of No. 0 chromicized gut with catheter technique so that the lung was entirely re-expanded at the conclusion of the pleural closure. The musculature of the thoracic wall was reconstructed anatomically. No drainage was used.

The patient was kept in an oxygen tent for the first forty-eight postoperative hours and received a course of penicillin. The postoperative course was entirely uneventful other than a small collection of sterile pleural fluid which was aspirated on the fifth postoperative day. The patient was up on the tenth day. Barium studies revealed the esophagus to be entirely normal and the patient, seen six weeks postoperatively, was entirely asymptomatic.

PATHOLOGY

"*Cross*: Specimen consists of a flattened ovoid tumor measuring 8 x 4 x 3 cm. It is firm in consistency; irregular in outline, with a smooth surface. On section it has the appearance and consistency of a fibroma, the surface being smooth and glistening.

Microscopic: Sections show a fibroma. The tumor is composed of spindle shaped fibroblasts which are forming a compact growth with interlacing bundles of fibroblasts. There are no mitotic figures seen. There are occasional eosinophiles and lymphocytes in the perivascular tissue. This is a benign tumor.

Diagnosis: Fibroma of the mediastinum."

CONCLUSIONS

The case presented illustrates three points: 1. Fibromata, although rare, are seen in the postero-superior mediastinum. In this case symptomatology was dependent upon mechanical interference with the esophagus. 2. This region of the mediastinum may be adequately approached transpleurally from the right side. 3. Open thoracotomy, when performed under the proper conditions, is relatively without hazard.

NEED FOR PATHOLOGISTS

Early detection and correct diagnosis of cancer are essential if the cancer problem is to be successfully attacked. A serious bottleneck in the attack is the shortage of competent pathologists. The laudable attempts by the American Cancer Society and other agencies to encourage the establishment of cancer clinics are greatly handicapped by this shortage. There is real danger that as a result of this shortage inadequately trained pathologists or other medical men will be entrusted with that most important of responsibilities—the making of tissue diagnoses.

The medical profession at large often fails to remember that the pathologist is a physician, practicing diagnostic medicine, and frequently the most important cog in the final diagnosis of tumors. This indifference, plus the fact that hospitals tend to "hire" pathologists on salaries, contributes in no small part to the unsatisfactory shortage of competent tissue pathologists. There is at present little inducement for any capable physician to take up pathology, even as a temporary occupation; if surgeons faced a similar salaried status in private hospitals, there would be a similar shortage of these specialists.

To reiterate, the diagnosis of cancer often requires skill not only on the part of the pathologist but also on that of the tissue technicians whose responsibility it is to prepare the slides from which the diagnoses are made. Too often histological sections are so poor they do not permit of a diagnosis. Insistence on the histological evaluation of the growth capacities and estimated radio-sensitivity of tumors, and the correlation of tumor structure with the clinical picture, has added another burden to the untrained pathologist. If he cannot differentiate between an endometrial hyperplasia and a corpus carcinoma how can he evaluate the lesion? Competent pathologists are not made to order in a few months.—California and Western Medicine.

ORCHIECTOMY IN PROSTATIC CANCER

Huggins has recently reported a study of five-year results on the treatment of prostatic cancer by orchiectomy and the administration of diethylstilbesterol. It is significant that the antiandrogenic treatment of prostatic cancer has proven to have both theoretical and practical significance. Twenty patients have been reported upon in this series. In two cases there was no obvious benefit from orchiectomy but in the remaining eighteen cases definite alleviation of clinical symptoms occurred. Five patients survived more than five years after orchiectomy.

Particularly to be emphasized is the symptomatic relief obtained by the procedure and/or the administration of diethylstilbesterol. The amelioration of pain is appreciated by the patient more than following the treatment of this condition by prostatic resection or radical prostatectomy. An important consideration brought about by this study was the disappearance of certain metastases and reappearance of lesions in other areas. In other words, orchiectomy apparently injured cancer cells in certain areas so severely that they did not again become active. The antiandrogenic treatment of cancer of the prostate has demonstrated that a chemical change in the internal environment of the host has brought about a sustained regression of a malignant neoplastic process. The clinical improvement including relief of pain, improved appetite with gain in weight, decrease of anemia, and a decrease of size and sometimes disappearance of the primary tumor and metastases have definitely established this type of treatment as a boon to the individual afflicted with prostatic cancer.—J. Iowa State Med. Soc.

The President's Page

In our mad rush today to make diagnoses accurately, are we using our God-given five senses to the limit as the real starting point, at the same time keeping fully in mind the fact that we need not close the door to other helpful means at hand to aid us to make a proper diagnosis?

There are many of us who feel that if we are to escape having somebody else do our thinking and acting for us, we must of necessity unlearn a few of the things we have learned during the past two decades.

To practice good medicine will always mean the taking of complete histories and doing thorough physical examinations. Let us not abandon entirely our native ability and substitute the thousand and one chemical and mechanical procedures available today in order to make what should be a simple diagnosis appear scientifically difficult. Much of the laboratory work necessary to provide a complete case record is absolutely essential, yet are we not perhaps devoting more time to "chart studying" than to personal observations of our patient's condition.

Is it not true that a study of the facial expression, the color and feel of the skin, the position of the patient in bed, and the type of pulse and respiration, together with an evaluation of other symptoms easily recognized by the physician, might happily serve to give an accurate and quick diagnosis?

Today we frequently tell the patient that his complaint or chain of symptoms must be something simple and of little consequence since all the laboratory tests have proved to be negative. Could it not perhaps have been simple before having all the tests made? With the costs multiplied for negative information, the patient must honestly wonder what it's all about!

There is a definite need for the laboratory, the x-ray, and the electrocardiagram, and all the other procedures used today. They are life-saving devices which we recognize and for which we are deeply thankful. Used wisely in our practice, they are necessary and helpful, but unnecessary and too frequent use might well be construed as an abuse of the confidence of our patients in our ability to provide good medical care at a cost within their means.

Andrew E. Derick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journal, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

CHANGE COMETH

At the recent meeting of the House of Delegates of the American Medical Association at San Francisco, the recommendation of the Board of Trustees that an "under secretary" for public relations be employed in the headquarters office at Chicago, was adopted. The function of this official, who is to be a trained layman, will be to handle all the public relations of the organized profession as represented by the A. M. A.

This step was taken upon the advice of an expert in public relations who has gone over the entire mechanism of the A. M. A., and this was one of the recommendations made. We hope such a step will improve the general efficiency of the Association in the field of public relations.

Presumably this action "poured oil on the troubled waters" relative to the activities of Dr. Morris Fishbein, for the California delegation, which spearheaded the anti-Fishbein movement, withdrew the resolution relative to him as soon as this recommendation of the Board of Trustees was adopted.

As far as our knowledge goes, no one has ever questioned the ability of Dr. Fishbein. Even one of his bitterest antagonists at San Francisco made the statement privately that "he is the best medical editor in the world." The objection has been only to his acting as spokesman for organized medicine.

A GOOD PATTERN

It was our privilege and pleasure to attend a banquet at Huntington a few days ago, honoring the doctors of the Cabell area who have been released from military service. The scene was laid at the beautiful Guyan Country Club, and the three Huntington doctors who were hosts at the elaborate affair left nothing to be desired in the way of food and entertainment. The medical veterans were made to feel at home and many expressions of deep appreciation for the opportunity to congregate together were heard during the evening.

The action of the Huntington doctors might well be accepted as a pattern for early fall meetings by many of the other twenty-eight component societies. The Huntington meeting was a huge success in helping the returned medical veteran become better acquainted with his confreres at home, and we hope that it may be only the first of several such meetings over the state.

S. 1606

Dingell, Dingell, great long bill,
How I wonder if you will
With a rebuilt face appear
When the Congress meets next year.

We have information to the effect that the proponents of S. B. 1606 have abandoned hope of securing its passage at this session of the Congress. We trust our information is correct. Likewise we have grapevine information to the effect that, quoting the Bard of Avon, "we have scotch'd the snake, not killed it," but, that the measure will be entirely rewritten so as to meet as many of the objections presented in committee against it as can be eliminated and still retain compulsory sickness insurance. It seems that this socialistic scheme of compulsory governmental sickness insurance may become a perennial legislative weed, a stinkweed to cumber indefinitely the soil of the legislative garden in Washington.

COOPERATION

A word of commendation and thanks is due the special committee on Revision of Workmen's Compensation Fees, and the officials of the Compensation Fund, for the apparent satisfactory completion of a new fee schedule, represented by several months' hard work.

The very fact that the committee and compensation officials are in full agreement, and that the new schedule has been approved by the Council, is proof enough that a very fine spirit of cooperation exists between medicine and those charged with the administration of the Fund.

The Association committee which has worked for months on the new fee schedule is composed of Dr. E. A. Trinkle, chairman, and Drs. H. V. Thomas, J. E. Wilson, E. F. Reaser, J. L. Hutchison, T. G. Reed, R. L. Anderson, W. C. Stewart, and V. L. Peterson. The Workmen's Compensation Fund has been ably represented in the negotiations by the Commissioner, Mr. E. B. Pennybacker, and Dr. W. T. Henshaw, medical director, John C. Ward, assistant commissioner, T. E. Cline, office director, and Omer P. Frame, actuary.

We congratulate these two groups, not only for the completion of their labors, but also for being able to reach an agreement satisfactory alike to Fund officials and the more than five hundred West Virginia doctors who administer medical and surgical care to cases under the Compensation Program.

RADICAL CHANGES IN A. M. A.

Two rather radical changes were made in the organization of the American Medical Association at the San Francsico meeting.

The first was the adoption of a resolution urging upon all state societies the necessity for immediate organization of voluntary prepayment medical service plans. "Get busy" was the watchword. In order to aid state societies set up such plans, a revolving loan fund of substantial proportions was authorized from which a state society may borrow without interest funds otherwise unobtainable for the initiation of its own prepayment plan.

The second change was the adoption of the plan presented at the 1945 meeting, providing for two sessions of the House of Delegates annually. The second session for this calendar year will be held in Chicago early in December.

It is believed that with semi-annual meetings of the House better adjustments of organizational programs to changing conditions can be maintained, and the actual operation of the headquarters office may be kept more responsive to the ideas and ideals of the practicing profession.

General News

REVISED COMPENSATION FUND FEE SCHEDULE APPROVED BY COUNCIL

The final chapter in the campaign to obtain a revision of Workmen's Compensation fees was written by the Council at a special meeting called by Dr. Thomas L. Harris, the chairman, at Parkersburg, June 30. At this meeting, the revised fee schedule agreed upon by Workmen's Compensation officials and a special State Medical Association committee, which has had this matter in hand for several months, was approved. The new fee schedule, effective July 1, is printed in this issue of the Journal.

The special committee which has been negotiating with officials of the Compensation Commission is composed of Drs. E. A. Trinkle, of Weston, chairman; and Drs. H. V. Thomas and J. E. Wilson of Clarksburg; E. F. Reaser and J. L. Hutchison, of Huntington; R. H. Boice of Parkersburg; and T. G. Reed, W. C. Stewart, R. L. Anderson, and V. L. Peterson, of Charleston. In the several meetings that have been held at Charleston, the Compensation Fund has been represented by John Ward, Assistant Commissioner, Dr. W. T. Henshaw, medical director, T. E. Cline, office director, and Omer P. Frame, Actuary.

P. and A. Committees Praised

Besides attending to routine business matters, the Council unanimously adopted a resolution praising the work of members of the state and local Procurement and Assignment committees and the Directing Board at Washington, during World War II. The following is the complete text of the resolution:

WHEREAS, the members of the state and local Procurement and Assignment committees voluntarily and willingly contributed much of their time and efforts to the work of distributing medical care in the fairest manner possible during the war emergency; and

WHEREAS, the very difficult and tedious work of completing surveys, and interviewing and corresponding with doctors and hospitals with reference to the program in its various phases was carried on in a thoroughly efficient and self-sacrificing manner; and

WHEREAS, with the return of the great majority of our doctors from military service, the work of the Procurement and Assignment Service is finished, and members have been released from their responsibilities by government representatives who have praised them for the part they have played in the national emergency:

THEREFORE, BE IT RESOLVED: That the Council of the West Virginia State Medical Association recognizes and gratefully acknowledges the untiring devotion and selfless efforts of Dr. Robert K. Buford, State Chairman, and the other members of the State Procurement and Assignment Service committee, and all the officers and members of the local P. and A. committees during the war, and hereby extends deep appreciation and thanks for the part they played in a tremendous war-time

program that, notwithstanding many trials and obstacles, has been successfully completed; and

BE IT FURTHER RESOLVED: That the Council also extends to Dr. Frank H. Lahey and the other members of the Directing Board of the Procurement and Assignment Service in Washington sincere thanks and appreciation for their wise counsel and helpful guidance in all matters pertaining to the work of the Procurement and Assignment Committees in this state.

The meeting was attended by Dr. T. L. Harris, Chairman; Drs. B. S. Brake, Guy H. Michael, Carl E. Johnson, J. E. Wilson, E. A. Trinkle, A. R. Sidell, J. L. Patterson, and T. G. Reed, Councillors, and Mr. Charles Lively, secretary **ex officio;** and Drs. E. F. Reaser, of Huntington, S. S. Hall, of Clarksburg, and W. C. Stewart, of Charleston.

PHC NAMES HEALTH OFFICERS

Two doctors who recently returned from military service have been named health officers by the public health council. Dr. W. E. McIlvaine, of Moundsville, succeeds Dr. G. C. Hill as health officer for Marshall County. Doctor Hill has relocated at Live Oak, Florida.

Dr. Thomas C. Sims, of Fayette County, has been named health officer for district No. 1, comprising Braxton, Clay, Nicholas, and Webster counties. He will have headquarters at Sutton.

DR. STEINDLER AT VA REGIONAL OFFICE

Dr. Leo F. Steindler, who has been associated with the Veterans Administration for more than 25 years, has assumed his new duties as chief medical officer for the Veterans Administration regional office at Huntington. Offices for the present will be maintained at the Veterans Hospital in that city. Doctor Steindler, who is a veteran of World War I, succeeds Dr. P. R. Copeland, chief medical officer of the Veterans Hospital in Huntington, who has been acting chief medical officer for the Veterans Administration regional office for the past several months.

Mr. George W. Windsor, of North Carolina, just recently released from military service, has been named administrative assistant to Doctor Steindler and has reported for duty at Huntington.

MEDICAL VETERANS HONORED

Three Huntington doctors, Ray M. Bobbitt, Ivan R. Harwood, and Gilbert A. Ratcliffe, were hosts at a banquet at the Guyan Country Club in Huntington, July 12, honoring all of the members of the Cabell County Medical Society who have returned from military service. It was probably the first affair of its kind held in West Virginia since the war ended.

Doctor Bobbitt served as toastmaster and the principal address of the evening was delivered by Dr. W. E. Neal, who has been engaged in general practice in Huntington since 1907. Dr. Francis A. Scott responded for the medical veterans. Short addresses were also delivered by several other members of the society.

VA-STATE PHARMACEUTICAL AGREEMENT

The Veterans Administration has approved an agreement with the State Pharmaceutical Association for pharmaceutical service for veterans at West Virginia drug stores.

Under the terms of the agreement, there are no restrictions upon physicians with reference to medical agents which may be prescribed, but the term "medical requisite" has been defined as including only the following items:

Insulin syringe and two (2) needles,
Two (2) hypodermic (insulin type) needles,
Atomizer,
Nebulizer,
Hot water bottle,
Fountain syringe,
Combination hot water bottle and syringe,
Ice bag,
Ice cap,
Urinal,
Bed pan,
Enema can,
Feeding tube, and
Ear and ulcer syringe.

These items may be prescribed only in the case of an emergency, and each prescription must be limited to a single item.

Pharmacists cannot be reimbursed for refilling any prescription, and doctors should write new prescriptions whenever additional drugs are indicated or a new medical requisite is required.

At a meeting held at Washington July 15 between officials of the Veterans Administration and representatives of state pharmaceutical associations, the regulations were amended to provide that all prescriptions must be written in duplicate and both copies given to the patient to be delivered to the pharmacist, who, in turn, will retain the original on file and forward the duplicate to the veterans administration. No particular form of prescription blank has been prescribed.

SOUTHERN PSYCHIATRIC ASSOCIATION

The annual session of the Southern Psychiatric Association will be held at the Jefferson Hotel, in Richmond, October 7-8. The last annual meeting was held in Nashville in 1941, under the presidency of Arthur J. Schwenkenberg, of Dallas. Dr. Whitman C. McConnell of St. Petersburg, Florida, is president of the Association and Dr. Newdigate M. Owensby, of Atlanta, Georgia, is secretary-treasurer.

ATTENTION, PHYSICIANS

Schedule 3-A of the Study on Child Health Services will be mailed to all physicians in private practice during the first week in August by the West Virginia Study of the American Academy of Pediatrics, according to Russell C. Bond, M. D., state chairman. Be sure to make the study on the day of the week assigned to you. The postwar care of children compiled from this data is of importance to all of us.

DR. OLIN WEST NAMED PRESIDENT ELECT OF AMA AT SAN FRANCISCO

Dr. Olin West, formerly secretary and general manager of the American Medical Association, was named president elect of that organization at the final session of the House of Delegates at San Francisco, July 4, 1946. He will succeed Dr. Harrison Shoulders, of Nashville, Tennessee, who was installed as president at this meeting.

Doctor West had served as secretary of the AMA from 1922 until his retirement early this year. He was succeeded by Dr. George F. Lull, of Chicago, who was named permanent secretary at San Francisco. Dr. R. W. Fouts, of Omaha, was renamed speaker of the House of Delegates and Dr. F. F. Borzell, of Philadelphia, vice speaker.

Dr. Walter E. Vest, of Huntington, and Dr. Ivan Fawcett, of Wheeling, attended the meeting as delegates from West Virginia. Dr. Vest served as a member of the committee on reports of officers.

Besides the delegates, the following West Virginia doctors were registered during the four-day meeting: James R. Bloss, Huntington; Lloyd E. Cox, Charleston; D. E. Greeneltch, Wheeling; L. K. Harless, Gauley Bridge; W. R. Harless, Madison; V. E. Holcombe, Charleston; Eugene A. Holland and Claude L. Holland, Fairmont; C. J. Holley, Wheeling; A. P. Hudgins, Charleston; J. G. Leech, Quinwood; E. E. Myers, Philippi; L. E. Neal, Clarksburg; Charles M. Scott, Bluefield; and Walter E. Vest, Jr., Huntington.

The next annual meeting will be held at Atlantic City, June 9, 1947, and St. Louis and New York were selected as the meeting places for 1948 and 1949, respectively.

CHANGE IN LABORATORY COMMITTEE

Dr. Walter E. Vest has tendered his resignation as a member of the state health department's committee on approval of laboratories, and Dr. W. W. Point has been appointed as representative of the public health council on that committee. The other members are Dr. F. C. Hodges, of Huntington, representing the State Medical Association; Dr. E. J. Van Liere, dean of the West Virginia University School of Medicine; Dr. Kathryn Cox, director of the state hygienic laboratory; and John C. Hume, P. A. surgeon (USPHS), director of the bureau of venereal disease control of the state health department.

URGES INCREASE IN APPROPRIATIONS

At the June meeting of the public health council held in Charleston, a resolution was unanimously adopted urging the appropriation by the legislature of sufficient funds to pay adequate salaries of medical and attendant personnel at the state mental institutions and otherwise provide suitable care for the patients. Copies of the resolution have been sent to Governor Clarence W. Meadows, Arnold Vickers, president of the Senate, and John E. Amos, speaker of the House.

BOARD ADOPTS NEW POLICY FOR TREATMENT OF MENTAL PATIENTS

Under a new policy adopted by the State Board of Control, all mental patients 16 years of age and under have been transferred to the Huntington State Hospital from the mental institutions at Weston and Spencer. The new plan also provides for the transfer of all tubercular and criminally insane inmates from Huntington and Spencer to the hospital at Weston. Patients listed as feeble minded will be segregated and sent to the Barboursville unit of the Huntington Hospital.

Joseph Z. Terrell, president of the board of control, has stated that the program is intended to create uniformity of operations among the institutions. Over eighty young patients have been transferred from Weston and ten from the Spencer hospital to Huntington, where facilities are much better for the care of children.

The plan was adopted by the board of control at a meeting held late in June with Dr. J. L. Knapp, the new superintendent at Weston, Dr. C. E. Hamner, superintendent at Spencer, Drs. C. T. Taylor and E. F. Reaser, superintendent and assistant superintendent, respectively, at Huntington, and Mrs. Virginia Comstock, director of the Barboursville unit.

HEART ASSOCIATION TO MEET

Dr. O. B. Biern, president of the West Virginia Heart Association, has announced that a joint meeting of the Association, the Cabell County Medical Society, and the medical staff of the Veterans Hospital, will be held at Huntington, Thursday, October 10. It will be the first meeting of its kind since 1941. All doctors are invited to be present. Two eminent cardiologists will present papers at the meeting.

RECOMMENDS 4-YEAR MEDICAL SCHOOL

The Kanawha Valley Labor Union has gone on record in favor of the establishment of a West Virginia University Medical College in connection with the new Memorial Hospital at Charleston. In a resolution adopted at a meeting held June 17, suggestion was made to the Governor that such a medical school be made a part of the new hospital when it is constructed because "at present there are no facilities in the state of West Virginia whereby one can complete the requirements for a medical degree, and boys and girls who desire to become physicians are compelled to finish their work beyond the borders of the state."

Copies of the resolution recommending the establishment of the college as part of or in connection with the hospital were mailed to Governor Meadowns, members of the Board of Control and the State Board of Education, the Board of Governors of West Virginia University, and all candidates for the House of Delegates and State Senate at the primary which will be held in August.

CHANGE AT MEDICAL CENTER

Dr. Andrew Sackett, formerly in charge of the rapid treatment center at Pensacola, Florida, has been appointed chief medical officer at the Kanawha Valley Medical Center in South Charleston, effective August 1. The appointment was announced by Dr. J. E. Offner, state health commissioner. Dr. D. J. McNairy, who has been serving as chief medical officer, resigned July 1 to enter private practice at Fort Wayne, Indiana.

DR. POLLOCK WITH VA AT HUNTINGTON

Dr. Bruce H. Pollock, deputy state health commissioner, has tendered his resignation effective July 19, when he will assume his new duties as chief of the out-patient service for the Veterans Administration at Huntington. He will have offices at the Veterans Hospital in that city.

Doctor Pollock was appointed deputy health commissioner upon his release from the Navy medical corps in October, 1945. Prior to entering the Naval service in 1941, he served as director of the bureau of county health work in the state health department.

TB AND HEALTH ASSN. MEETING

The first statewide postwar meeting of the West Virginia Tuberculosis and Health Association will be held at the Waldo Hotel, at Clarksburg, September 20-21. It is expected that anti-tuberculosis workers and representatives from all affiliated associations and committees will attend the meeting.

CANCER FUND OVER $75,000

Mrs. John S. Harvey, State Commander of the West Virginia Division of the American Cancer Society, reported late in June that over $75,000 had already been collected in connection with the drive for funds for cancer control held throughout the state. It is expected that the quota of $90,480 will be reached by the time the books are closed on August 31. The following counties have already exceeded their quotas: Berkeley, Cabell, Calhoun, Gilmer, Grant, Harrison, Jackson, Jefferson, Kanawha, Lewis, Mercer, Morgan, Ohio, Pocahontas, Putnam, Ritchie, Tucker, Tyler, and Upshur.

NATIONAL FOUNDATION APPOINTMENT

Dr. Hart E. Van Riper, of Scarsdale, New York, has been appointed by Basil O'Connor as medical director of the National Foundation for Infantile Paralysis. He succeeds Dr. Don W. Gudakunst, who died early in 1946. Prior to the death of Doctor Gudakunst, Dr. Van Riper served as assistant medical director and has been acting head of the medical department for the past several months.

CERTIFICATION OF TECHNICIANS

Qualified laboratory technicians will hereafter be certified by the state health department without regard to their association with any particular laboratory. Heretofore, when a certified technician in sole charge of an approved laboratory accepted employment elsewhere, the laboratory lost its approved status which could not be restored until the new technician had completed approximately a week's training at the state hygienic laboratory, or until annual tests had been satisfactorily completed.

Qualified technicians will now be eligible for immediate certification if they are employed in a laboratory already approved, and a laboratory which loses the services of a technician will retain its approved status and will be permitted to resume making serological examinations required by the premarital and prenatal laws just as soon as another certified technician is placed in charge.

These new regulations were adopted by the public health council at a meeting held at Charleston, July 15, and followed a series of conferences between Dr. Kathryn Cox, director of the state hygienic laboratory, the state health department's committee on approval of laboratories, and a special committee of the West Virginia State Medical Association composed of Drs. Thomas G. Reed, of Charleston, chairman, Guy H. Michael, of Parsons, and J. L. Patterson, of Holden.

AM. CONG. PHYSICAL MEDICINE

The 24th annual scientific and clinical session of the American Congress of Physical Medicine will be held September 4-7 at the Hotel Pennsylvania in New York. Scientific and clinical sessions will be given each day. All sessions will be open to members of the medical profession in good standing with the American Medical Association. In addition, the annual instruction courses will be held September 4, 5, and 6. These courses will be open to physicians and to therapists registered with the American Registry of Physical Therapy Technicians. Full information may be obtained from the American Congress of Physical Medicine, 30 North Michigan Avenue, Chicago 2, Illinois.

OB. AND GYN. EXAMS

The American Board of Obstetrics and Gynecology, Inc., has announced that the next written examination (Part I) for all candidates will be held in various cities of the United States and Canada on Friday, February 7, 1947, at 2:00 P. M. Candidates who successfully complete the Part I examination proceed automatically to the Part II examination held later in the year. All applications must be in the office of the Secretary by November 1, 1946. Application blanks and full information may be obtained from Paul Titus, M. D., Secretary, 1015 Highland Building, Pittsburgh 6, Pennsylvania.

COLLEGE OF PHYSICIANS

RELOCATIONS

Dr. M. H. Maxwell, of Red Jacket, has moved to Moorefield.

* * *

Dr. F. D. Fortney, of Newburg, is now on the staff at Pinecrest Sanitarium at Beckley.

* * *

Dr. W. G. C. Hill, formerly of Moundsville, has moved to Live Oak, Florida, where he is a member of the staff of the Suwanee County Health Unit.

* * *

Dr. G. O. Crank, who has been located at Lawton since his release from the medical corps of the Army, has accepted a position with the Veterans Administration and is located at the sub-regional office at Clarksburg.

* * *

Dr. J. W. Carney, who has been engaged in general practice at Logan for a number of years, has relocated at Newport News, Virginia, where he has offices at 1411 25th Street in that city.

* * *

Dr. L. R. Dudney, who has just completed a residency in surgery at Charleston General Hospital, has located for the practice of his profession at Gainesboro, Tennessee. Dr. Dudney practiced at Layland prior to his service in the Army medical corps.

* * *

Dr. Harry D. Chambers, formerly of Whitesville, who has just completed a postgraduate course in pediatrics at the University of Pennsylvania Hospital, in Philadelphia, has located at 202 9th Avenue, in Huntington.

* * *

Dr. Vincent Prioletti, formerly of Weirton, who was released from the Army early in June, with the rank of Major, has located for the practice of his profession at New Castle, Pennsylvania, where he has offices at 1006 South Hill Street.

* * *

Dr. F. G. Prather, formerly of Wharton, has moved to Asheville, N. C., and opened offices at 56 Clayton Street.

* * *

Dr. E. R. Cooper, who was formerly on the medical staff at Weston State Hospital, is now in charge of the female section of the Southwestern State Hospital at Marion, Virginia.

* * *

Dr. James S. Vermillion, of Welch, who was released from the Army Medical Corps in April, with the rank of Lieutenant Colonel, has moved to Kingsport, Tennessee, where he has offices at 223 E. Sullivan Street.

* * *

Dr. Max Koenigsberg, of Point Pleasant, who has completed a post graduate course in internal medicine at the Graduate School of Medicine of the University of Pennsylvania, in Philadelphia, has relocated in Charleston and will engage in the practice of his specialty, with offices at 1120-A Quarrier Street.

* * *

Dr. Roberta Hall, of Weston, has completed her internship at the St. Louis City Hospital, in St. Louis, and is now on the staff at the City Hospital, in Weston. Dr. Hall received her M. D. degree at the Medical College of Virginia, Richmond, class of June, 1945.

* * *

Dr. A. J. Viehman, of Huntington, has moved to Lexington, Kentucky, where he is a member of the staff of the Julius Marks Sanitarium. Dr. Viehman served as a member of the staff at Hopemont Sanitarium, 1941-1944.

* * *

Dr. Fritz Levy, member of the staff at Davis Memorial Hospital, at Elkins, has accepted appointment as pathologist at the Veterans Hospital at Huntington. He moved to Huntington with his family early in July.

* * *

Dr. Darrell A. Campbell, of Charleston, has moved to Ann Arbor, Michigan, where he will continue the practice of his specialty of surgery. He was formerly located at Schenectady, New York, coming to Charleston upon his release from the Army medical corps early in 1946. While overseas, he served as chief surgeon at an Army general hospital.

* * *

Dr. J. W. Walters, formerly of Wheeling, who was recently released from military service, has located at Toledo, Ohio, where he will continue the practice of his specialty of dermatology and syphilology.

* * *

Dr. J. C. Gaskey, of Williamson, has been released from military service and resumed civilian practice in his home city, where he has offices in the Cinderella Building. While in the Army medical corps, he was assigned to a station hospital in the E. T. O.

MISSISSIPPI VALLEY MEETING

The 11th annual meeting of the Mississippi Valley Medical Society will be held at the Jefferson Hotel, in St. Louis, Sept. 25-27, with over 35 clinicians as speakers. Dr. M. Herbert Barker, of Northwestern University, Dr. Herman L. Kretschmer, of the University of Illinois, and Dr. Robert A. Moore, of Washington University, will serve as moderators for the round table discussions. The entire program has been planned to appeal especially to general practitioners. A copy of the program will be mailed upon application to the president, Dr. Grayson, Humbolt Bldg., St. Louis, Mo.

OCTOBER MEETING OF PHC

A meeting of the Public Health Council will be held at the Daniel Boone Hotel, in Charleston, October 7-9, for the purpose of examining applicants for licensure in West Virginia.

1947 MEETING OF ACP

The 28th annual session of the American College of Physicians will be held in Chicago, Illinois, April 28-May 2, 1947. Dr. David P. Barr, president of the College, will be in charge of the program of general sessions and lectures. Dr. LeRoy H. Sloan, of Chicago, the general chairman, will be in charge of the program of hospital clinics and panels, as well as local arrangements and entertainments. Mr. Edward R. Loveland, executive secretary of the College, 4200 Pine Street, Philadelphia, will have charge of the general management of the session and the technical exhibits.

THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII SEPTEMBER, 1946 No. 9

THE PLACE OF PENICILLIN IN THE TREATMENT OF SYPHILIS*

WILLIAM M. SHEPPE, M. D.**
Wheeling, West Va.

Introduction: In the course of human events, certain accomplishments and certain occasions are so noteworthy in character that they become a part of the history of the human race and exist as never-to-be-forgotten milestones in human progress. The occurence of certain outstanding and even startling accomplishments is likewise to be observed during the progressive accumulation of knowledge regarding the disease which we know as syphilis. The study of this disease has continued as a steady unremitting stream of effort contributed to by endless numbers of enthusiastic investigators. It is apparent, however, that at regular recurring intervals certain highlights of achievement appear. I refer particularly to the discovery of the causative organism, the Spirochaeta pallida, by Hoffman in 1905; the announcement of the Wassermann reaction in 1906; and the development by Ehrlich of arsphenamine in 1907. This drug proved to be a valuable and powerful destroyer of spirochetes in the human body. It was also difficult to prepare and to administer, and its use was not infrequently accompanied by severe reaction. It served as the basic arsenical preparation used in the treatment of syphilis for many years. About 1920 neoarsphenamine came into general use. The advantage of this drug, as you know, consists in the fact that it does not require alkalization previous to administration and its use is accompanied by somewhat fewer reactions than were observed with the use of the old arsphenamine. This improvement was accompanied, however, by some loss of spirocheticidal efficiency. In 1934 the preparation which we now call mapharsen was first released for study. This proved to be a drug of high therapeutic efficiency and with a somewhat lower reaction index than that shown by any other arsenical. Many other episodes of greater or lesser importance might be mentioned, i. e., the replacement of mercury by the superior efficiency of bismuth, the demonstration that rabbit testicles provided an ideal cultural medium for the growth of Spirochaeta pallida, and the development of the various precipitation reactions. To this outstanding list of achievements must be added an additional development which is, even now, in the process of going forward under our very eyes, namely, the employment of penicillin in the treatment of syphilis.

In the evaluation of any new procedure which is introduced in the treatment of disease, the measurements of its efficiency must be based on the disappearance of the signs and symptoms of the particular disease under treatment and the length of time which is required to effect this disappearance and, in the case of syphilis, the percentage of manifestations of the disease which do not recur. Once having established these facts they must, in turn, be compared with a similar group of facts derived from studies of older methods of treatment with which we are more familiar. We find ourselves, at this date, in the midst of comparison of treatment of lues with a biological substance as com-

*Oration in Medicine, presented before the 79th Annual Meeting of the West Virginia State Medical Association at Huntington, May 14, 1946.

**From the Department of Medicine, The Wheeling Clinic, Wheeling, West Va.

pared with the entirely chemical attacks of previous years. If we may omit mention of the earlier struggles with mercury in its various forms, the modern treatment of syphilis may be said to have begun with the use of old arsphenamine which was admittedly effective in the dosage and duration of administration which became standardized. In view of its reaction producing tendency and the inconvenience of its administration, it was eventually replaced by neoarsphenamine which finally yielded to mapharsen or, even more correctly, oxophenarsine hydrochloride which at first was employed in spaced doses as in the case of old arsphenamine and neoarsphenamine. As finally established, this may be called the era of the formula expressed by 30-60-0-5, meaning 30 spaced injections of an arsenical alternated with 60 injections of bismuth, no rest periods, and 5 years of observation. More recently mapharsen has been used in the form of the so-called "quick treatment." These quick methods have multiplied enormously. We hear of the one-day method made famous by de Kruif, the five day method, the twelve day method, the thirty day method, the twelve week method of Eagle, and the twenty-six week method of the U. S. Army. During these various time periods one may utilize a slow drip, a rapid drip, or a multiple syringe method. The employment of so many variations has led to a certain degree of therapeutic confusion. It is my personal opinion that all of the various "day" methods can be discarded as being ineffective, dangerous, impractical for private practice, and no less expensive. The mortality of these various systems of treatment varies from .5 to 3.2 per cent. Surely this is not a mortality which is to be tolerated in the treatment of syphilis. This is particularly true when it is borne in mind that at least 15 per cent of people who acquire syphilis develop their own immunity to the disease without treatment and suffer no ill effects whatever. The best of the so-called quick methods seems to have been devised by Eagle. He employs an average of one milligram of mapharsen per kilo per injection. This amounts to forty to eighty milligrams per injection and this is given three times per week with weekly injections of bismuth. This tri-weekly system has resulted in a mortality of approximately .5 per cent and apparently results in complete "cure" in about 82 per cent. It is most efficient in primary syphilis but makes a poorer showing in the treatment of secondary syphilis.

The twenty-six week method approved by the Army usually is accompanied by the production of artificial fever. This increases the efficiency of the method but also increases the number of complications. The most serious type of complication encountered in all of the quick treatment methods are: (1) encephalitis, and (2) hepatitis, or a combination of both. These brain and liver involvements are difficult to treat and may be fatal.

The advantages of the so-called quick methods are many, at least on superficial consideration. However, the fact that the patient must be hospitalized, that the procedures are highly technical, that they require supervision by one who is extremely skilled in their use, and that even with all these precautions the mortality rate extends from .5 to 3.2 per cent would seem to render them completely unsuitable for application in the private practice of medicine and probably unsuitable for the public clinic. I believe that the risk incurred exceeds the supposed saving in time and possible efficiency. While we are on the subject of efficiency, it might be well to recall that in the treatment of syphilis by means of chemotherapy in any form, whether administered according to earlier standard procedure or by the quick method, the actual number of people who are carried to completion of therapy are very few. It is estimated that there are 230,000 new cases of syphilis that come under treatment annually in this country; however, less than one-half remain under treatment. This is due to a number of factors, the principal of which are discomfort of repeated intravenous injections, the fear of the untoward effects of treatment, the cost of the treatment, and the loss of time from gainful employment necessitated by frequent and long continued visits to the doctor. Again, in spite of a most intensive study over a long period of time, using both the standard and, more recently, the quick schedule, the percentage of "cures" in the accepted sense of the word, is not as high as is ordinarily believed. By "cure" in syphilis we mean one of several things: (1) the absence of infectious relapse, i. e., the reappearance of lesions, (2) the absence of serological relapse, (the return of a negative blood to a positive), (3) (and perhaps most conclusively) the development of reinfection on subsequent exposure. If the chemotherapeutic methods are gauged by this yardstick in the treatment of primary and secondary (early) syphilis, and this is the type of syphilis which is most easily evaluated, we find that there is a general average of approximately 85 per cent cure and this is in cases in which the prescribed treatment is carried out conscientiously by both patient and doctor over a prescribed period of time. In well advanced secondary syphilis the percentage falls

lower, probably to 78 per cent. These are all generous figures. This, of course, does not take into account the large number of people who discontinue taking treatment and therefore should be considered as therapeutic failures. In spite, therefore, of the relative effectiveness of standard methods of treatment which now have received true evaluation over a thirty year period, the disadvantages of such treatment have provided a stimulus for a continued search for new methods and new agents which may achieve the same effect with less risk to the patient and with less consumption of time and possibly money.

In December, 1943, Mahoney, Arnold, and Harris reported the apparently favorable results in the treatment of four primary seropositive cases of syphilis with penicillin. In spite of their restrained report, it was obvious that the new drug had produced a startling effect on the lesions caused by the Spirochaeta pallida. Fortunately, the machinery for the evaluation of a new antisyphilitic agent is well established. I refer to the Cooperative Clinic Group which for a number of years has been engaged in the evaluation of the various types of therapy. This body has been aided by the work of the Penicillin Panel of the Subcommittee on Venereal Diseases of the Committee on Medical Research. As the facts accumulated it became evident that a new and powerful antispirochetal substance was available.

Before turning to the discussion of the value of penicillin as applied to the treatment of syphilis, I would like briefly to review a few pertinent points in regard to this remarkable antibiotic.

The preparations of penicillin now in common use are extremely potent. They will, ordinarily, inhibit susceptible bacteria in dilutions of one to fifteen million or (expressed in other figures) two-hundredths of a microgram of penicillin is capable of inhibiting two hundred million organisms. I refer, of course, to the action of this substance in vitro. The destructive action of this substance is probably directed to the bacteria themselves and has no effect on the processes of body immunity. It is a well established fact that the drug is most bactericidal during the stage of multiplication of bacteria and least effective during the resting stage. It is doubtful if there is a direct destruction of the adult organisms by penicillin. The probability is that they are inhibited from multiplication. In view of the rapid destruction of bacteria in the human body by the processes of natural immunity, if multiplication of invading organisms does not take place at the usual rapid rate, the result is destruction of the infective agent, just as much so as if it had been directly destroyed. This fact, which has been determined experimentally, may be nicely demonstrated in the case of Treponema pallidum. Many suspensions of Treponema have been subjected to penicillin and are found to be completely inhibited or noninfectious. In spite of this fact, the organisms continue to be motile. In other words, the ability to multiply is lost long before motility is lost and it is believed that this applies also to other functions of the spirochete.

The fractions of penicillin which are believed to be effective are ordinarily spoken of as G, F, X, and K. More recently it has been suspected that fraction K is the most inert of all. It is believed that in recent months the commercial product has contained an undue amount of fraction K and that this has weakened its potency. The relative effectiveness of fraction G, F, and X is entirely unknown. It is known that none of them, when separated by crystalization, is particularly effective in itself. There is a substance present in unpurified penicillin which, when separated out by absorption, is found to be four times as effective as purified penicillin. This causes one to suspect that there is an unknown mold product present which has not yet been identified but which has so far been called an impurity. This very impurity may, in fact, be the most important part of the penicillin complex.

On the medical service at the U. S. Naval Hospital, Jacksonville, Florida, the use of penicillin in the treatment of syphilis was inaugurated on August 10, 1944, and has been continued at that institution until the present time. My remarks are based on the study and treatment of 308 patients with syphilis. These patients have been observed both at Jacksonville and at the Wheeling Clinic. Eighty-two of these cases were classified as early, that is, they presented either primary lesions (chancre) or secondary lesions. Two hundred and fourteen cases were classified as late. This included patients who exhibited lesions and those who had no visible lesions but a positive blood reaction. The remaining seven cases presented neurological symptoms and spinal fluid findings supporting a diagnosis of neurosyphilis.

The Dosage Employed: The dosage in all these cases except those of neurosyphilis has been uniformly 2,400,000 units, given in doses of 40,000 units intramuscularly every three hours. No patient has

been treated with a smaller dosage and patients classified as having neurosyphilis have had 7,000,000 units given in the same dosage and at the same intervals. We have been able to reach certain conclusions in regard to dosage which are recorded as follows:

Extremely large doses, given either in individual injections or by increasing the number of injections, apparently do not improve the results to be obtained by giving a total dose of 2,400,000 units divided in 60 equal doses.

Lesions heal rapidly with blood levels of .04 unit per cubic centimenter. Forty thousand units every three hours will maintain this or a higher level. Increasing the concentration of penicillin in the blood stream beyond this point does not seem to alter the rate or efficiency of inhibition of the spirochete. In other words, a greater concentration of penicillin than that described seems to serve no useful purpose. One wonders at once whether the dosage prescribed is as effective in maintaining satisfactory levels of penicillin in the tissues as it is in the blood stream. After all, the greatest number of spirochetes are located in the tissues rather than in the blood stream. The rather surprising effect produced on gummata of bone, skin, and mucous membranes, which are readily visible, indicates that when such a dosage is employed an efficient level of penicillin is, in fact, reached and maintained in the tissues themselves. Recent work, including that carried on at the Kanwha Valley Medical Center in Charleston, has indicated that the addition of even a small number of injections of mapharsen and/or bismuth greatly increases the efficiency of the basic penicillin treatment. In fact, the results attained in early syphilis by this combined plan far exceed anything which has been previously accomplished in the treatment of this type of syphilis. It is hard to understand why the employment of such a few injections of arsenic and/or bismuth should improve the end results by as much as 10 per cent! Let us hope that time will prove that there exists a true synergistic action between penicillin and the chemical compounds.

I have considered that the administration of oral penicillin was entirely too experimental for its employment in the treatment of syphilis. It is possible that under hospital conditions the continuous intravenous administration may be useful but it has not been proven to be necessary in the routine treatment of syphilis with penicillin.

In private practice one of the practical difficulties which has to be overcome is the mechanics of administering numerous injections at relatively short intervals over a period of seven or eight days. Unless this problem can be solved, the treatment of syphilis with penicillin must remain a hospital procedure. Peanut oil-beeswax mixtures which decrease the rate of absorption of penicillin have been employed but the results are not yet evaluated. There is always the risk of an unknown rate of absorption, either too fast or too slow, resulting from such injections. For this reason it is obvious that one may have at times an unnecessarily high concentration of penicillin and at other times none at all, depending upon the vagaries of absorption. More recently, however, several preparations have appeared, these being mixtures of peanut oil with cholesterol derivatives. They are easy to handle, become semisolid on slight heating, and apparently are absorbed at a rather regular rate. If one may judge from the results obtained in the treatment of gonorrhea with such suspensions, it seems likely that the drug is readily and more or less uniformly absorbed, and blood penicillin determinations have indicated that this is the case. The cost of 300,000 units of plain penicillin is one dollar and eighty cents. The cost of the oil and wax preparation prepared according to the Romansky formula is four dollars and eighty cents. Three hundred thousand units of pencillin in the peanut oil-cholesterol mixture costs two dollars and fifty-two cents. It is very probable that this or some similar plan will solve the problem of the treatment of syphilis with penicillin in private practice and in ambulant patients.

Effect of Penicillin in Various Types of Syphilis: As in any other discussion of the therapy of syphilis, it becomes necessary to divide the disease into its various types.

(A) *Neurosyphilis:* The best results aparently have been secured in the type of individual who exhibits a positive spinal fluid but who is entirely asymptomatic and has no other objective evidence of neurosyphilis. The management of this type of case always has been a difficult problem. The question always has arisen as to how much treatment such a patient should have; whether the treatment should be directed toward rendering the spinal fluid permanently negative or whether a minimum amount of treatment plus future observation is the best course to be followed. Such individuals have received all degrees of treatment in the past, from minimal standard therapy to the administration of malaria. It is extremely gratifying to know that the result with penicillin in this type of neurosyphilis

is most satisfactory, especially when its administration is accompanied by three spinal drainages. In this type of case the only criterion of cure is the disappearance of the abnormal changes in the spinal fluid. It may be said that the results now being achieved in this group by penicillin therapy are far superior to any other earlier form of treatment.

In tabes there is usually a gain of weight on penicillin treatment and a decrease of leg pains. Ataxia, and bladder and gastric crises are not favorably affected. In paresis it is necessary to analyze each individual case before any estimate of efficiency can be made. The use of the term "paresis" is spread over a broad field and includes all degrees of involvement, from those individuals who exhibit a paretic formula in the spinal fluid without symptoms, to those who are completely deteriorated. Obviously, before one can make any statement in regard to the efficiency of treatment, the type of paretic under treatment must be established. In general, the results in paretics have not been favorable. They are certainly no better than those achieved by standard methods, including malaria, and are probably inferior. The addition of penicillin to fever therapy, either malaria or mechanical, does not seem to increase the effectiveness of that particular modality. Outstanding results have been obtained in meningeal syphilis. By this, I refer to the acute meningeal form with cell counts ranging up to one or more thousand, marked increase in protein, and the manifestations of an acute febrile disease.

Certain general conclusions may be drawn at this time in regard to neurosyphilis: (1) Do not expect too great an improvement in cases where organic changes or marked deterioration have taken place.

(2) The effect of penicillin in neurosyphilis is delayed. The maximum effect is certainly not reached under 120 days and may not be obtained under 300 days. It is wise, therefore, not to repeat courses of penicillin too early in cases which do not seem to have responded well to the initial course.

(3) The use of spinal drainage in conjuction with penicillin in one to four drainages per course is advised. An alternate method is the employment of a modification of the Swift-Ellis procedure. This is carried out as follows: 50,000 units of penicillin are dissolved in 2 cc. of saline and placed in a 10 cc. syringe. After the puncture is performed the syringe is attached to the needle, 5 cc. of spinal fluid is withdrawn, the syringe is removed from the needle and rotated and the mixture reinjected at a slow rate.

(4) The improvement in the spinal fluid findings takes place in the following order: (*a*) Decline in cell count, (*b*) decline in protein content, (*c*) return of collodial gold curve to normal, (*d*) reversal of spinal fluid Wassermann to normal. All of the changes except *a*, *b*, and *c* may take place and the spinal fluid Wassermann may be unaffected. However, further reduction in the spinal fluid Wassermann may occur at a much later date so that at least a period of six months is required to evaluate such changes.

The data available in regard to the use of penicillin in cardiovascular syphilis is insufficient for analysis at this time.

I have always had great difficulty in deciding as to the course to be followed in the management of the individual who presents himself for examination and a positive blood Wassermann is found which, on repetition, remains unchanged. It has been my custom to study these individuals very thoroughly from the general physical standpoint including examination of the spinal fluid. In spite of this thorough study many of them show nothing at all except the positive serology and many have no history of venereal disease of any kind. It has been my policy to carry out at least one standard course of routine treatment under these circumstances but I must confess that many of these patients have not been improved and that ordinarily there has been no change, or at least a very temporary change in their blood serology. After a long and somewhat expensive course of treatment, it is rather embarrassing to tell the patient that the findings are unchanged. The question often has arisen in my mind as to whether these people really have syphilis or whether we are at times treating a blood test which is purely a biologic false positive? No method so far has been devised which is efficient in separating this type of reaction from that due to the presence of syphilitic reagin. It has seemed to me that I have had an unusual percentage of unfavorable reactions to arsphenamine in these seropositive-only cases. Should such individuals, having reached middle age with a negative spinal fluid and without evidence of syphilis except a positive reaction in the blood, be subjected to standard treatment? Until some method is developed in the laboratory which will actually separate biologic false positives and true positives, I believe the answer is that we must assume that these people have syphilis. However, by the employment of penicillin which has seemed to be quite effective the patient is exposed to no real risk and the length

of time involved is very small in comparison with the older method.

(B) *Prenatal and Congenital Syphilis:* The dosage of penicillin in the treatment of prenatal syphilis is the same as in the treatment of other types of the disease. It is probably wise to begin treatment with one-fourth the standard dose for twenty-four hours, followed by an increase of one-half the standard dose for the next twenty-four hours, finally reaching 40,000 units per injection. It has been stated by some but denied by others that bleeding and abdominal pain are frequent concomitants of the treatment of syphilis in pregnant women. A few abortions have been reported, but it must be recalled that syphilitic women have a marked tendency to abortion anyway and there is still doubt that penicillin is in any sense an abortifacient. In the case of the development of bleeding or abdominal pain, it is wise to discontinue treatment for two weeks, resuming treatment at the end of that period. It is believed desirable to begin the treatment of the syphilitic patient by the 16th week of her pregnancy. The infection of the infant is most likely to occur from this time on and this fact serves as the basis for this recommendation. After the administration of 2,400,000 units, the blood should be examined by a quantitative procedure once a month. If the titre is rising, it probably is advisable to repeat the series. If it is stationary or falling, no further treatment is necessary. In the entire series of cases of prenatal syphilis treated with pencillin which have been reported in the literature, there has been only one failure, a failure in the treatment of such a case being indicated by the birth of a syphilitic infant. In addition, there has been no morbidity and no maternal mortality. The blood Wassermann reaction of the mother in such cases is not particularly reliable. It may remain positive up to delivery or afterward and then become negative. If the titre is not rising, this fact is not alarming. I believe, however, that in view of the desirability of protecting the unborn infant, it is much wiser to give too much penicillin, even amounting to a second series, than to underestimate the situation and give too little. The mother should be followed by blood examinations once a month for one year after delivery and then at longer intervals for five years. It is customary to make examinations of the baby's blood for six months. The reappearance of syphilitic lesions or the rise of titre in the blood examination must be considered a relapse in pregnancy and additional treatment provided. Above all, the treatment of prenatal syphilis by penicillin has allowed for a factor of safety for both mother and child which has never been equaled before. I have no hesitation in saying that, in this type of patient, all forms of chemotherapy should be completely abandoned and that every such case should be treated exclusively with penicillin.

In congenital syphilis, the results are less satisfactory and more difficult to obtain. The usual dosage is 50,000 units per pound of body weight given over a period of fourteen days. Rise of temperature and gastrointestinal upsets are commonly seen during treatment. As is well known, syphilitic infants do not tolerate treatment well and in the use of penicillin, as in all other antisyphilitic agents, great caution must be exercised. It is probably desirable to begin treatment with one-fourth of the determined individual dose and gradually increase it until the estimated dose has been reached. No result should be considered as conclusive under six months. Approximately 70 per cent of infants born with syphilis and treated with pencillin have escaped physical evidence of the disease, and have negative blood examinations. It is possible that the passage of time will produce even better figures than are being given here.

Herxheimer Reaction: Herxheimer reactions are familiar in all forms of antisyphilitic therapy. They are believed to occur at the time of greatest destruction of spirochetes by any antisyphilitic drug and are presumably due to the liberation of endotoxins resulting from the destruction of spirochetes. The reaction consists characteristically of an exaggeration of the various syphilitic focal symptoms in the body. The fact that this reaction appears after the initial injection of pencillin is, in itself, evidence of the potency and specificity of the drug. There is always the possibility that when an active syphilitic process exists in a vital organ, serious and even fatal damage may result from a Herxheimer reaction following a large initial dose of a powerful antisyphilitic drug. The theoretical possibility of such reactions must be considered, therefore, with penicillin. In actual practice there is very little evidence that serious Herxheimer reactions are at all likely. My own experience would leave me to believe that the danger of such reactions in the use of penicillin has been somewhat exaggerated in the literature. I do believe, however, that precaution is desirable in prenatal syphilis, in congenital syphilis, and in cardiovascular syphilis.

Summary of Treatment:

1. Adequate dosage will produce a high percentage of "cures" in early syphilis. The actual

percentage figures attained are equal to and probably better than may be attained by chemotherapy.

2. Penicillin is the drug of choice in the treatment of prenatal syphilis and in this condition it may be used alone, completely replacing both arsenic and bismuth.
3. In view of its greater margin of safety and an efficiency which is at least equal to the older methods, it is the drug of choice for use in congenital syphilis.
4. The drug is extremely effective in certain forms of neurosyphilis and syphilitic meningitis. In paresis and tabes it is to date much less effective than the standard procedures, especially the various forms of fever therapy nor does it seem to improve the results previously obtained by these methods.
5. The percentage of "cures" in early syphilis is increased as much as 10 per cent by the addition of a small number of injections of mapharsen and/or bismuth.

Recommended Plan of Treatment: The schedule of treatment which is now recommended involves the administration, intramuscularly, of 25,000 units of penicillin every three hours for fourteen days. In addition the patient receives five injections of mapharsen. The individual dose of mapharsen is one mg. per kilo of body weight with a maximum dosage of 60 mg. The injections are given on the first, fourth, seventh, tenth, and thirteenth days. This is followed by eight injections at weekly intervals of 200 mg. of bismuth, the first dose being given on the fourteenth day.

Quantitative blood examinations are carried out at monthly intervals for twelve months and thereafter at six month intervals for five years.

If infectious or serological relapse occurs, the case is considered as one of unusual difficulty and each patient becomes an individual problem for fresh therapeutic evaluation and decision as to further treatment.

In cases of neurosyphilis not immediately requiring fever therapy, the same schedule of treatment is employed except that the individual dose of penicillin is increased to 40,000 units. In addition four spinal drainages or intrathecal injections of penicillin (50,000 units) by a modified Swift-Ellis method are carried out.

It must be emphasized that now, as always, each case of neurosyphilis is an individual problem and is not subject to treatment by "routine" methods.

SUMMARY AND CONCLUSIONS

There is at present much confusion of thought and action regarding the preferred method of treatment of the various types of syphilis. I have attempted to clarify our knowledge of the subject by tracing the development of the various plans of antisyphilitic therapy, beginning with the original interrupted courses of arsenicals and bismuth. This was followed by the adoption of the 30-60-0-5 formula which was in turn succeeded, at least in part, by the numerous "quick treatment" schedules. In December, 1943, the announcement of the successful employment of penicillin in the treatment of syphilis opened up an entirely new era in the treatment of this disease. It is my personal opinion that we, of this generation, have been supplied with the most powerful therapeutic agent until now available for the treatment of lues. I am fully aware that two and one-half years is insufficient time in which to evaluate any antisyphilitic drug. It will require ten years before final and definite statements can be made. I believe, however, on the basis of preliminary results, that a certain degree of restrained enthusiasm is fully justified although it must be borne in mind that the advent of any new drug in this field, however promising, does not relieve us of the necessity of a careful study of each case and a meticulous follow-up for at least a five year period. Syphilis is still syphilis.

Much remains to be accomplished. Suitable methods for administration to ambulant patients must be perfected, maximum and minimum dosage and rates of administration must be established and the limitations of the drug as well as its accomplishments more accurately defined.

Finally, let me emphasize that the statements set forth in this discussion are based on studies which are still in progress and which are subject to modification as additional information is accumulated.

NO KNOWN CAUSE OF EPILEPSY

There does not appear to be a single pathological event which is known to be the only cause of epilepsy. It is not suspected that epilepsy is directly inheritable. Most clinicians, however, agree that a tendency or weakening of general metabolism or a susceptibility of the circulatory system of the brain to damage is found in a certain percentage of patients related by blood tests.

Injury to the brain, occurring either prenatally, during birth, or during early infancy is an important event in the history of a person who develops convulsive seizures. The injury may be either violence (trauma) or the result of infections or inflammations as caused by sleeping sickness, measles, meningitis, whooping cough and other acute illnesses.—S. N. Berens, M. D., in Nebraska State Medical Journal.

THE EVOLUTION OF THE ART OF MEDICINE*

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Most medical discourses nowadays concern themselves either with new discoveries or with the economic future of medicine in the changing field of human relations. Whatever misgiving I feel at departing from this custom is assuaged in some measure by the assurance from a member of your program committee that a discussion touching upon present-day methods of practice might not be unacceptable at this time. I propose to say something of the development, through the ages, of the Art of Medicine, as distinct from its science. An inventory, of a sort, with due regard to liabilities as well as assets, is occasionally desirable even in a profession, and may be fruitful, though the process of self-examination, whether by individuals or by groups, may not always result in inflation of the ego. While it is my conviction that this topic merits more frequent consideration in our societies than it receives, I could wish that it might have been entrusted to one whose wisdom and powers of expression surpass any that I possess.

In the general advance of knowledge during the past century, and particularly during the past half-century, medicine has shared generously. Due to clinical investigation, to laboratory research, and to utilization of discoveries in the ancillary sciences, horizons of understanding both of the human organism and of its disorders have been immeasurably broadened. New agents have been found for the control or eradication of disease, and, after adequate testing, many of these have established themselves on a sound scientific basis. In large measure, as a result of the subjection of certain infections and the prolongation of life in chronic incurable disease, the human span has been steadily lengthened. No one doubts that the science of medicine has progressed and continues to progress at a rapid rate.

The Art of Medicine consists of the practical application of the teachings of medical science. It includes not only the utilization of known diagnostic and therapeutic measures, but also the manner in which all dealings with the patient are conducted. Whatever teaching the physician receives in this art is derived, for the most part, from the example of those with whom he comes in contact in actual practice. The student of today probably is given poorer training in the Art of Medicine than was his predecessor of a century ago, whose medical education consisted of an apprenticeship to an established practitioner.

Far more ancient than its science, the Art of Medicine is older than civilization itself. Always, man has explained, on the basis of the supernatural, that which he does not understand. Thus, primitive races regarded disease as the invasion of the body by demons which must be placated or exorcised. Amulets, or charms, were worn to prevent their return. The physician and the priest were one, as their ministrations were inseparable in that they must deal with the supernatural. Emancipation from magic and superstition has been slow and halting, and it is, perhaps, not too much to say that our art is still tinged with a mysticism in which patients of a certain type delight and from which practitioners of a certain type profit.

There are those who hold that whatever progress the human race has made consists of its increasing store of knowledge. They question a corresponding growth in intelligence or in character, or even that these attributes have shown any advance at all since the days of the Grecian philosophers. If this be true, or even partly true, we might expect the Art of Medicine, which is so closely interwoven with the intelligence and character of the individual physician, to lag far behind the science. William Withering evidently had something like this in mind when, in 1878, in replying to an inquiry concerning the use of the foxglove, he wrote as follows: "It is much easier to write upon a disease than upon a remedy. The former is in the hands of nature, and a faithful observer, with an eye of tolerable judgment, cannot fail to delineate a likeness. The latter will ever be subject to the whims, the inaccuracies, and the blunders of mankind."

As has been emphasized by Oliver Wendell Holmes, and, some eighty years later, by Alfred Stengel, the progress of medicine has been subject to ebb and flow, to "currents and counter-currents." The advances of one age have been forgotten or dissipated by the next. One fad or fashion has become outworn to be succeeded by another. As knowledge slowly increased, it was often overlooked, misunderstood and misapplied; and it remained for succeeding generations to find it useful. Medicine, like the other arts and sciences, has reflected the temper of each succeeding age. Dormant periods lasting hundreds of years have been followed by

*Presented before the 79th Annual Meeting of the West Virginia State Medical Association at Huntington, May 13, 1946.

periods of almost hysterical, if not always intelligent, activity.

The placebo, something to please the patient, has, according to Houston, always been the norm of medical practice. Magic gave way to drugs of all varieties, but those that produced some demonstrable and impressive effect steadily gained in popularity. Thus, emetics, purges and blisters came to the fore, and fortified by bloodletting, held the principal place in the doctors' armamentarium for centuries. That the physician believed in these agents may be questioned, but it seems likely that he did. Certainly he assured himself that his practice was in accord with the customs of his day, and if his patients were pleased, the transaction was satisfactory. The patient recovered; therefore, the remedy worked. And if he did not recover, his failure to do so was explained on the ground that he did not seek help in time or did not follow instructions.

Discussing human conduct in general, Frederick Peterson has this to say: "It is to be borne in mind that suggestion and unconscious imitation are the foundation of all education, of customs, manners, morals, dress, in fact, of the whole behavior of any race of mankind. Nonconformity is taboo, and success in life depends upon being one in the chain of the Bandarlag. If one lets go of the tail in front and frees his own tail, he is a nonconformist and suffers the consequences. But probably most of the progress of humanity, such as it is, has been made by nonconformists." In the development of medicine, as well as in other fields of human endeavor, the role of the nonconformist has been significant. His has been the task, often a thankless one, of penetrating the crust of petrified complacency and hidebound custom with which each generation encases itself.

Hippocrates, born 460 B. C., was the real founder of rational medicine. Living in an age of great philosophers and priest physicians, he established a method based upon common sense and observation, and free from superstition. He did not attempt to control the course of disease, but sought to assist nature, insisting that "the physician is the servant, not the teacher, of nature." However, his doctrine of observing hygienic principles and giving nature a chance was not popular with his contemporaries. He who has been considered the "greatest physician of all time" was criticized for giving too little treatment and was doubtless called, in the language of his day, a "therapeutic nihilist."

It is of interest to observe that the outstanding therapeutic nihilist of this age, more than twenty centuries after Hippocrates, was Sir William Osler. The same term, or its equivalent, has been applied over the intervening years to many others who have protested the irrational, useless and often dangerous practices of their time. They were nonconformists who have been influential in shaping whatever progress the Art of Medicine has made. To be sure, increasing knowledge has had its effect upon this Art, but more than knowledge is needed. The despair of the true scientist ever has been the poorly informed or unscrupulous doctor who seeks to make immediate application of newly discovered truth, only partly understood. Numerous examples of such practices could be cited even today. A new drug or new biological product is put to uses never intended or to dangerously excessive abuse.

Important scientific discoveries have had little or no effect upon contemporary medical thought or modes of practice. The seventeenth century produced both William Harvey and Thomas Sydenham, the former called the founder of scientific medicine; the latter, one of the great physicians of history, and spoken of as the English Hippocrates. Like Hippocrates, Sydenham sought knowledge in bedside observation and experience. He manifested complete impatience with the medicine of his day, which concerned itself with physiologic speculation and fanciful theories of disease. His descriptions of smallpox, gout and chorea have been unsurpassed to this day as examples of clearly expressed clinical observation. Yet he was denied, during his lifetime, Fellowship in the Royal College of Physicians, though his bust later was placed before its doors.

The eighteenth century saw several conspicuous advances in medical science, including the birth of bacteriology, the correlation of pathology and clinical medicine, and the first achievement of preventive medicine, vaccination against smallpox. However, the practice of the Art, though carried on by brilliant and learned men, continued to consist largely of fads and unscientific systems. In England, the methods of the great Lettsom were thus described, probably in jest, but the lines may contain more truth than poetry:

"When any sick to me apply,
I physics, bleeds and sweats 'em;
If, after that, they choose to die,
Why, verily! I Lettsom."

Distinction in medicine has not always carried with it the ability or inclination to improve the Art. Galen had the unique distinction of dominating

medical thinking for thirteen centuries. A man of brilliant mind, he possessed a talent for investigation and was a prolific writer. However, his ready and dogmatic explanations of disease by metaphysical theories added nothing of lasting value to medical knowledge, while the elaborate system of polypharmacy introduced by him was little more than a variation of the magic and witchcraft that had preceded him. It is said even in the fifteenth century, medical men showed a strange mixture of "small knowledge, based on observation and Galenic doctrine, and an abundance of belief in witches, demons and celestial influences."

America's first medical school was founded by a group of young physicians who had studied in England and on the Continent, and it has been said that they "brought to their native land the highest medical cultures of Europe, and left behind the pretentious, bombastic, inflated and egotistic methods of the popular and aristocratic practitioners of the day, with their gold-headed canes, snuff boxes and brilliant establishments". Among these was Benjamin Rush, a name that stands high in the annals of medical achievement, and one whose life and work deserve the consideration of every student of medicine. As an example of indefatigable energy combined with a brilliant but uncritical mind, Rush stands preeminent. He apparently had everything required of a great physician save the critical approach. His therapeutic optimism is incredible. While he made lasting contributions to the study of certain diseases, his conceptions of treatment betray his fatal weakness. Garrison speaks of him as "wrong-headed as well as strong-headed" and as a "typical eighteenth century theorist". He seems to have overlooked completely the curative power of nature and to have believed that even the mildest ailment demands strenuous intervention. Viewed today, his enormous doses of calomel and his violent bloodletting are little short of terrifying.

It would not be possible to speak of progress in the Art of Medicine without conspicuous mention of the name of Jacob Bigelow. An accomplished physician and teacher, he was more than ordinarily gifted in expression, and his writings are enduring examples of lucidity and force. His address, in 1835, before the Massachusetts Medical Society, entitled "Self Limited Diseases", exerted a powerful influence on medical practice in the United States. In the words of Dr. Holmes, it "did more than any other work or essay to rescue the practice of medicine from the slavery of the drugging system which was part of the inheritance of the profession". In this discourse Bigelow showed that most diseases determine their own course and that the supposed effect of much of the treatment then in vogue was either useless or harmful. The need for this teaching was plain, for Marion Sims, speaking of a period as late as 1836, says that the medicine of that day was more than heroic, it was murderous, and he thought it better to trust entirely to nature than the hazardous skill of the doctor.

It is clear that up to a century ago or less, the practice of medicine consisted for the most part of the ingenious application of placebos. In the minds both of physicians and of the laity the doctor was a medicine giver, the patient a medicine taker. Pharmacology was unknown, and the beneficent hand of nature in curing disease received little recognition. Though much sentiment is connected with the medicine of certain ancient physicians, there is little to indicate that these men had any useful conception of the conditions they faced or that the remedies they offered had any specific value. What they did do was to satisfy the patient's urgent desire for some sort of comfort in his distress and some sort of action, whether wise or foolish, in his emergency. This function of the doctor, whether he realizes it or not, still is and always will be in demand. The role of the physician as comforter and counsellor still vies in significance with his role as healer.

We know infinitely more today than our forefathers of even fifty years ago, but have we progressed proportionately in the intelligence with which we apply this knowledge? Do we manifest wisdom superior to theirs in dealing with the very large number of conditions we do not understand and for which we have no specific remedy? Are we free from "the slavery of the drugging system"? Are we still addicted to placebos, substituting new ones for old, and, as new scientific facts emerge, giving to our placebos a scientific status they scarcely deserve? Are we better guided than our predecessors by judgment and conscience, or are we still as responsive as they were to the urge for action? While categorical answers cannot be made to these questions, there is abundant evidence at hand to indicate that, to say the least, our Art advances slowly. It is still subject to the "whims, the inaccuracies and the blunders of mankind". Much of our practice is difficult to explain except as a survival of our ancient heritage of magic and superstition.

Of the generation just preceding ours, Osler

wrote: "As an enemy to indiscriminate drugging, I have often been branded as a therapeutic nihilist. I bore this reproach cheerfully, coming, as I knew it did, from men who did not appreciate the difference between the giving of medicine and the treatment of disease . . . credulity in matters relating to disease remains a permanent fact in our history, uninfluenced by education". He spoke also of the "spurious and seductive pamphlets issued by pharmaceutical houses" as a thraldom "not less dangerous than the polypharmacy from which we are escaping". What would he say of the activities of the pharmaceutical establishments, even of the so-called ethical variety, of today?

As late as 1930 Henry Christian delivered a notable address which bore the significant title, "The Practitioner's Need for an Intelligent Skepticism". As an illustration of our susceptibility to fads he chose the doctrine of focal infections and dealt with the wholly illogical and unwarranted lengths to which it had been carried during the years just past. What he characterized as the "damnable practice of pulling teeth" might well remind us of the heroic measures of the darker ages. Doctor Christian discussed also the doctor's weakness for new and untried and always expensive remedies that are either without effect or less useful than the remedies they replaced. As examples were mentioned various hypnotics, special preparations of digitalis and endocrine substances then in vogue. Of the extravagant claims then being made for the periodic health examination as a preventive of the degenerative and other diseases, he wrote: "Of some we know more as to cause; of others, less, but of none, much, and until we know more of causes we cannot expect to do much to prevent. It seems to me wise to acknowledge freely our limitations in preventive measures and desirable to investigate more and talk less of prevention of disease."

It might be argued that certain trends operating at present tend to exert upon the doctor pressures never before experienced. This is a day of salesmanship. Sales promoting mentality is the conspicuous state of mind and this leads inevitably to disregard or perversion of fact. Its effect upon human conduct generally is easily discernible and of necessity medicine cannot escape its influence. We hear daily of drives to prevent or control this or that disease of which we know little or nothing as to cause. Slogans garnished with intemperate propaganda are designed to enlist more propagandists and to raise large sums of money which is the present day panacea for all ills. So persuasive have these appeals been that our government authorities seem to have become convinced that the treatment of disease is merely a matter of appropriations.

Today the radio trumpets the merits of this or that remedy, and even explains its indications and actions. The humblest periodical feels obliged to give medical advice which is too often supplied directly or indirectly by an interested party. Physicians' offices are deluged with samples and gaudy literature, proclaiming the advantages of various nostrums, and these are followed by so-called detail men who declaim fluently upon subjects of which they have no knowledge and who can invariably explain why their product has not been accepted by the Council on Pharmacy of the American Medical Association. It is commonly said that doctors are well represented on the prospective customer lists of purveyors of gold bricks, and this might suggest that there is something in the Art of Medicine that tends to weaken the salesresistance of those who practice it.

A curious vagary of the present day is the vitamin rage. Founded upon a modicum of scientific fact and encouraged by unsuspecting doctors, it has now progressed beyond the bounds of reason and has become big business. Vitamins are urgently advised, not only for all those who are sick but also for the well, in order to prevent illness. The widely advertised panaceas of a generation ago had the opposition of doctors generally, but not so with vitamins. Aided by a sympathetic medical profession, everybody who can make a pill now produces a superior vitamin mixture, and judging from the amount spent in advertising, the profits must be enormous. Even the U. S. Department of Agriculture and the U. S. Public Health Service have lent their aid to propaganda that is not based on scientific or clinical evidence. While vitamins are rarely dangerous, they may not be entirely harmless and they are ridiculously expensive. The physician's part in promoting this fraud will hardly be recorded by future historians as one of the creditable achievements of this generation.

What has been said with regard to vitamins applies also to a number of other remedies recently discovered, as, for example, the sulfonamids and penicillin. That they are of value is certain, but before their indications or dangers or limitations are at all clearly defined or generally understood, they are being exploited as cure-alls. We have seen vaccines, hormones, all forms of electricity and ultraviolet rays used indiscriminately for no better reason

than that patients expect the new treatment and get it, regardless. If it can be administered by needle, so much the better. A "shot" to the impressionable patient carries far more authority than a pill and the doctor's reputation as a dispenser of magic is proportionately enhanced. Such therapy succeeds "in ratio to the psychological influence of the advisor and to the psychopathic complex of the advisee".

Increasing knowledge has meant the accumulation of instruments and methods for objective examination. While these often are of great value, they always require intelligence for their use and interpretation, and in themselves do not deserve the respect approaching awe that often is accorded them by doctors and patients alike. The sphygmomanometer, for example, has its place and is now universally used. But to inform a patient simply that his blood pressure is too high or too low frequently does more harm than good. As a rule, neither he nor the doctor knows what is meant, and the remedy prescribed either to lower or raise the pressure is, as a rule, no more than a placebo. The patient draws his own conclusions as to the seriousness of his malady and very often develops a blood pressure neurosis which, in itself, is a source of disability and suffering.

It has been said that the more accomplished a clinician is, the fewer tests he will require in the proper investigation of patients. Within limits, this is undoubtedly true. But is it generally regarded? Some medical studies seem to consist of a multiplication of stunts, many of which are wholly irrelevant and unnecessary. This often passes for thoroughness and, unfortunately, is too much emphasized in our medical schools and teaching hospitals. To be sure, some obscure cases demand that a number of possibilities be explored but this is no excuse for the elaborate, time-consuming, and expensive routines that are so commonly practiced today, and which add so materially to the cost of medical care. An appeal to the magic of apparatus may please certain patients, but it is a poor substitute for clinical judgment. The medical gadgeteer is an unfortunate by-product of medical science.

Another modern trend is the inordinate growth of specialism, which Stengel has characterized as the major disease of medicine today. All admit it, but few attempt to do anything about it. Individuals are studied as collections of parts by those who strive to know more and more about less and less, and the patient himself is often lost in the shuffle. The term "specialist" appeals strongly to the laity who themselves decide which organ needs special attention and refer themselves accordingly. There are two kinds of specialist. One has a broad foundation of medical knowledge and experience and has added thereto special acquaintance with a particular field. He is an asset we could ill afford to lose. The other is one who, from limited background takes a brief course, secures the appropriate apparatus, and proceeds to cash in on the title he has awarded himself. This subject was discussed at length by one of the wisest of men, the late George Ben Johnston, in his presidential address before the Southern Surgical Association in 1897. He saw the necessity for and recommended what is being undertaken now, almost fifty years later: the certification of specialists who have met the requirements of the various specialty boards. Even this is not entirely adequate. There remains the problem of considering the patient as a whole and protecting him from over-specialism.

The weaknesses and imperfections of medical practice that have been discussed and others that might be mentioned depend upon certain elements in the doctor-patient relationship that are immutable. Only through a clear appreciation of that fact by physicians will it be possible to make less obscure the line of demarcation between orthodox practice and quackery. The clarification of this line should be the objective and responsibility of every member of the profession. Little help is to be expected from the public as it judges doctors poorly and often bestows its rewards upon the incompetent.

Notwithstanding, the Art of Medicine has shown definite signs of progress. This is due in large measure to what may be looked upon as restraints that have been generally agreed upon and instituted by physicians themselves. In order to practice, doctors are now required to establish evidence not only of medical knowledge but of some background of training in the liberal arts. Such requirements inevitably raise the level of intelligence and character in the profession and eliminate many undesirable would-be members. Hospitals are subject to inspection and regulations which result in bringing the work of the individual practitioner in review before his fellows. Medical societies where free discussion prevails are easily accessible to most doctors and sound journals are readily available to those who have the interest or energy to read them. The public is better informed as to what may be expected from modern science, and the patient, though still guillible, is no longer the unquestioning medicine taker he once was.

As time passes, the physician's prestige will rest more and more upon the scientific achievement of the profession. The cooperation of its members with wise and unselfish leadership is to be expected. Though it is not possible ever to visualize medicine as a pure science or to foresee ultimate perfection in the Art, we may confidently hope for continued progress in the direction of rational practice. This must come about, not through political manipulations, nor through public clamor, but through the unceasing efforts of doctors to improve themselves and to eliminate ignorance and incompetence from their ranks.

As men of science, doctors must eschew the sales promoting mentality. In this connection, the words of Jacob Bigelow spoken more than a century ago apply with equal force today: "The importance and usefulness of the medical profession, instead of being diminished, will always be elevated, exactly in proportion as it understands itself, weighs justly its own powers and professes simply what it can accomplish. It is no derogation from the importance of our art, that we cannot always control the events of life and death, or even of health and sickness * * * * * Above all, if you would discountenance quackery, take care that you become not quacks yourselves. Charlatanism consists not so much in ignorance as in dishonesty and deception".

CONTROL OF CANCER

Cancer still remains well up toward the top as a cause of death. Long looked upon as a hopeless disease by both profession and the public, it has now been conclusively shown by careful observation that it is neither hopeless nor incurable. True, the exact cause of cancer is not known, but many causative factors are understood, including growth tendencies, and the part which parental influence plays, and it is also slowly being determined what types of internal environment have to do with cancer formation.

It was wisely stated centuries ago that, "It is idle to speak of the cure of a disease until its cause is understood." Rather than to claim we are curing cancer, perhaps it would be better to admit that our progress has just reached the stage whereby we can often remove a malignant growth from the body, retard its development or postpone its appearance, but mankind will still be faced with the likelihood of a high rate of incidence until we come to know how growth within the body, both normal and abnormal, is controlled.

Up to the present time surgical removal and radiation, combined with early diagnosis, offers the best means of controlling the disease, but other factors more potent of success will sometime be found.—R. S. Morrish, M. D., in J. Mich. St. Med. Assn.

THE ABNORMAL PHYSIOLOGY OF CONGESTIVE HEART FAILURE

By ROBERT M. SONNEBORN, M. D.
Wheeling, West Virginia

The picture of a patient with congestive heart failure is a familiar one to all of us. The dynamics of the underlying physiological and mechanical processes are less well understood. To understand why and how the heart fails, the patient becomes dyspneic, and his ankles swollen, is to have a dynamic moving picture of this large group of so-called "decompensated cardiacs".

The primary disease process may invlove the heart as in valvular or coronary disease, the peripheral vascular apparatus as in hypertension, or the tissues as in hyperthyroidism, but in each instance the final result is to render the heart inefficient in the performance of its work because of overstrain or of undernourishment.

Due to strain of various kinds the heart muscle may be unable to maintain a satisfactory circulation, so that stasis in various parts of the body results. The site of the slowed venous current will first be present behind that part of the heart which is failing; in the pulmonic circuit in hypertension and mitral stenosis, and in the systemic circuit in chronic pulmonary and tricuspid disease. Such stasis may come quickly, as in mitral stenosis; or slowly, as in hypertension, and when it produces signs or symptoms it is called congestive failure.

Usually, the strain in the early stages is largely unilateral, but in due time in the abnormal process, the failure of one ventricle adversely affects the other.

We know that the heart, as a rule, does not fail when stress is first thrown upon it. The reserve power of a normal heart, its ability to dilate, enables it to respond to extraordinary demands. But in the case of the patient with cardiac disease, there ceases to be a reserve; it has become a part of the response to ordinary demands. It is this asymptomatic stage characterized by cardiac enlargement that is the compensatory state for the failing heart. The cardiac output is not markedly altered either at rest or with moderate exertion; the patient may not be aware of any change in his functional ability.

However, a dilated heart requires more energy with which to work and in time a person with hypertension may notice that whereas at one time he could run for a bus without discomfort, he now becomes short of breath. The heart can no longer increase

its output to compensate for the increased strain put upon it. The mitral valve may become relatively insufficient, the left auricle dilated, and the lungs congested.

As this progresses, the patient notes that he is short of breath when walking. The heart is then under further strain, the output of the left ventricle being somewhat reduced and the pulmonary blood pressure greatly increased. The right ventricle becomes dilated, then hypertrophied to compensate for the increased work required of it. If the process is slow, the right ventricle may be able to function satisfactorily, only to fail at a later time, its failure being more responsible for symptoms and signs and even for death itself than the left ventricular failure which occurred first.

In instances of marked mitral stenosis, or chronic pulmonary disease, it is the right ventricle which soon feels the strain and experiences the excess work which the left ventricle experiences in hypertension. It is not able to pass on through the lungs into the left side of the heart all the blood that it receives from the venae cavae. Hence, it becomes dilated, then hypertrophied, the tricuspid valve becomes relatively insufficient, the right auricle engorged, dilated; the coronary sinus, the great veins, and the liver become congested, circulation through the small arterioles and capillaries hampered, there is stagnation of the systemic venous circuit with marked elevation in pressure, and edema sets in.

The left ventricle receives an inadequate amount of blood, it becomes flabby, and its output is decreased, which still further adds to the insufficiency of the blood flow through the coronary vessels as well as through the general circulation.

When a ventricle fails, its insufficiency is felt both before and behind it. Thus, there is truth in both the forward failure theory, that the clinical phenomena of congestive failure are manifestations of a deficient blood supply to the tissues, the result of an inadequate cardiac output; and the back pressure theory, that the symptoms and signs are to be attributed to a rise in pressure back of the failing chamber of the heart. Neither alone explains all the signs and symptoms, although at times there may be a preponderance of the one factor over the other.

CARDIAC ENLARGEMENT

An increase in the size of the heart is an almost constant finding in patients with congestive failure. The one great exception is that group of cases of failure due to mechanical obstruction to proper cardiac filling and contraction, the result of pericardial constriction.

Cardiac hypertrophy in most cases seems to be a physiological response to prolonged and continuous overwork of the organ rather than a disease process in itself. However, in a relatively small number of cases, hypertrophy is due to some process as yet unrecognized.

Thirty years ago, Sir Ernest Starling described the Law of the Heart, namely, that with cardiac muscle, like skeletal muscle, the energy of contraction is a function of the length of its muscle fibers; that the ability of the heart to dilate is a reserve capacity of the heart to increase its output under the strain of increased filling and increased circulatory requirements. This so-called law has served as the foundation for the modern study of cardiac enlargement. Both hypertrophy and dilatation are originally compensatory adjustments to an increase of the work of the heart in proportion to its strength. In a healthy individual this condition is only temporary; in a diseased or abnormal heart the change is necessarily permanent.

Dilatation is an increase in the length of the fibers relative to their width, and is the immediate response. It offers a chemical advantage because of the greater surface and consequent increased opportunities for a chemical interchange between blood and fibers, but this advantage is more than offset by the mechanical disadvantage of increased energy expenditure for a given amount of work. By some means, as yet unknown, this disproportion between the length and diameter of the muscle fibers which has been produced by dilatation leads to hypertrophy, to an increase in width of the fibers, and thereby the original relation of length to diameter tends to be restored. Thus the bulk of the heart is increased without appreciable increase in the number of fibers.

However, conditions have been altered. Nutrition of the muscle is now under a handicap. Whereas, the surface of the fiber through which the nutritive processes must take place has been increased only by the first power of the radius, the mass of tissue to be nourished has increased as the square of the radius. Thus, the mechanical advantage of greater power of contraction is offset by the chemical or nutritive factor and the tendency will be to dilate further whenever conditions of stress arise. Thus, the changes which at first were entirely compensatory, and which may be thought of as the reserve of the cardiac muscle, have not only become irreversible because of the existing ab-

normal physiological state, but have tended to become a vicious circle, and instrumental in producing congestive failure.

The heart, as a rule, attempts to prevent further dilatation and hypertrophy by increasing its rate. This so-called Bainbridge reflex is probably an auricular reflex through the vagi, the result of engorgement of the right auricle and an increased venous pressure. This enables the heart to accomplish a given output with a smaller diastolic volume than is the case with slower rates, and thus decrease the venous pressure without further dilatation. However, this advantage is more than offset by its disadvantages. First, excess energy is expended in opening the semilunar valves, which in turn increases the basal metabolic rate, and thus requires a further increase in cardiac output; second, as a result of the shortened diastole and poor coronary filling, the circulation to the myocardium may be impaired; and third, the shortened recovery period may be inadequate for oxygenation of the fibers. For these reasons, tachycardia, by increasing the load on an already damaged heart, may be the precipitating factor in congestive failure.

Cardiac enlargement frequently is present for some time before subjective symptoms occur, and may be the only finding in a patient who obviously has organic heart disease, yet is symptom free. As and if symptoms develop, cardiac enlargement increases.

DYSPNEA

The first subjective evidence of a decreased cardiac reserve in the great majority of patients is dyspnea on exertion to an extent which previously could be performed without discomfort.

Dyspnea has been defined by Richards as "subjective distress, felt as a sensation of breathing and brought on when the mechanical apparatus for respiration is unable to provide easily the pulmonary ventilation required by the individual's immediate physicochemical and metabolic state".

Regardless of the initial etiological factor, practically all patients with organic heart disease pass through this stage, which may last only a few months, as is true in cases of luetic heart disease, or for many years as is the case in patients with arteriosclerotic heart disease or hypertension.

The symptom is a progressive one and as time goes on less and less exertion is required to bring on the discomfort. Frequently the patient will note that as the day goes on, breathing becomes more difficult, and that upon lying down, he has a feeling of suffocation. By elevating his head with two or three pillows he experiences relief. Soon he notices that his breathing is difficult even at rest. As the months go by, he is denied the comfort of sleep. He is aroused in the middle of the night by an attack of coughing or a nightmare, and awakes with a start. He cannot get his breath, his breathing is noisy, and he experiences relief only when he expectorates a plug of mucus or receives a hypodermic from his family physician. At other times, he experiences difficulty in falling asleep; his breathing is irregular, it stops, then he breathes rapidly and deeply. Finally one night, an attack of coughing again arouses him. But this time he experiences no relief, he is frightened at the sight of the pink froth drooling from his mouth; he cannot stand up or lie down, and finally sinks into coma, not to be aroused again. That is the picture of dyspnea in its various phases.

Various theories have been advanced as the cause of dyspnea. Anoxemia of the respiratory center, changes in the CO^2 content of the blood and its tension, alterations in the pH of the blood, and vagal stimulation, all have been given as the explanation. It is known that the rate of respiration can be controlled by nerve stimulation, and every physician has seen the changes in the depth of respiration with increased CO^2 in the blood. With marked exertion these changes undoubtedly occur, but do they explain the dyspnea that the patient experiences on mild exertion or at rest?

The patient has in most instances some decrease in his vital capacity because of pulmonary congestion. Vital capacity is a good indication of the efficiency of the pulmonary bellows, the ability to satisfy the physicochemical and metabolic needs of the individual. This means that for any given level of ventilation he is more likely to feel respiratory distress than would be the case if his vital capacity were normal. With a decrease in vital capacity, there is a diminution in the depth of breathing. There necessarily results an increase in the rate, which is an uneconomical type of breathing, as a greater amount of pumping has to be done to accomplish a given ventilation of the alveoli.

Possibly irritation of the vagal endings in the congested areas causes further increase in the respiratory rate. This increase in ventilation causes still further diminution in the respiratory reserve and

brings the patient closer to or in more severe cases across the threshold of dyspnea while in the resting state. With exertion there is inability to increase the cardiac output sufficiently to take care of the increased metabolic needs, because the maximum oxygen intake is less than that of normal persons. In addition, there is an immediate reflex increase in the ventilation, possibly due to afferent impulses from moving muscles, or through reflexes inaugurated by the increased venous pressure in the region of the right auricle, or both. Consistent changes in the O^2 and CO^2 values or pH of the blood have not been found with moderate exertion in normal individuals but with severe exertion a rise in H ion concentration of the blood is a large factor in increasing both depth and rate of breathing.

With further decrease in the vital capacity, orthopnea manifests itself. On lying down, the patient notes an exaggeration of his symptoms. This is thought to be due to further decrease in vital capacity by a shift of blood from the abdomen to the chest, the result of gravity which is accompanied by an increase in the output of the right ventricle. Consequently, the degree of pulmonary congestion increases and in addition there is the mechanical effect of a high diaphragm. Even though the decrease in vital capacity may be very small, it is accompanied in many instances by reflex stimulation of respiration which may be sufficient to push the patient across the threshold with resultant dyspnea. When he sits up the reverse phenomenon occurs, and he experiences relief. In severe cases, by hanging his feet over the bed, he may lower the pulmonary congestion by decreasing the venous return sufficiently to give some relief.

The mechanism of evening dyspnea is similar to that of orthopnea, both of them being due to an increase in the degree of preexisting pulmonary congestion brought on in the one case by the change from the sitting to the recumbent posture, the other by greater bodily activity during the day.

Attacks of paroxysmal cardiac dyspnea are most common at night in the first hours of sleep. These attacks are seen only in those cases where left ventricular insufficiency is the dominating picture.

The contractile power of the right ventricle is either unimpaired or relatively less so than that of the left ventricle, so that there occurs an increase in the tension of the pulmonary circuit, which is characterized by pulmonary engorgement and evidence of pulmonary hypertension. Certain observers believe that between attacks there is a functional pulmonary emphysema, which is thought to be caused by the disturbance of the pulmonary circulation. The peripheral circulation is usually normal. With improvement, the pulmonary circulation first becomes normal, and this in turn is followed by a disappearance of the functional emphysema when present.

These attacks are precipitated by some factor or factors as yet not understood, which bring about an acute imbalance between the right and left ventricles with resultant pulmonary congestion. This is usually accompanied by an episode of coughing, nightmare, desire to urinate, or some such condition which arouses the patient.

With the congestion of the lungs, there may develop an increase in the rigidity of the lungs, and consequent decreased aeration. During these attacks there has been demonstrated a diminished velocity of blood flow with an increased volume of blood in the lungs, and a decreased vital capacity. There is also an increase in the extravascular fluid in the alveoli, and if the attack is severe, pulmonary edema may develop and death may ensue. Thus a situation is produced with an unfavorable relationship between the circulation and the efficiency of the pulmonary bellows, and a rapid and severe embarrassment occurs.

The periodic irregularity of the respiration characterized by a period of apnea, followed by breathing which begins almost imperceptibly and increases, until it becomes dyspneic and then wanes until apnea follows the last shallow breath, which we all know as Cheyne-Stokes respiration, is occasionally noted in patients with congestive failure during the induction of sleep.

Just what factor it is in congestive failure that causes the overventilation with loss of CO^2 and the production of periodic respiration is not yet known. Many observers feel that since the cerebral centers are susceptible to oxygen lack, Cheyne-Stokes breathing may involve the loss of cortical control over the medullary centers. The depressed sensitivity of the higher centers at the onset of sleep seems to be responsible for the occurrence of periodic breathing in many apparently normal adults. Ordinarily this causes no discomfort. In the patient with congestive failure, already on the threshold of dyspnea, the onset of hyperpnea is likely to be associated with respiratory distress. However, after sleep has endured for a little while, decreased ventilation tends

to increased CO^2 with an abolition of the period tendency.

EDEMA

The third major phenomenon in congestive failure is edema, which may involve the subcutaneous tissues alone, or the body cavities, or both.

The factors concerned in the formation of edema regardless of etiology are: (1) decrease in the colloid osmotic pressure of the plasma, (2) increase in the permeability of the capillary wall, and (3) increase in the hydrostatic pressure in the blood capillaries.

All three of these factors may play a role in the formation of cardiac edema, but the factor of increased hydrostatic pressure in the capillaries is by far the most important.

Congestive failure is almost always associated with a rise in venous pressure. This back pressure is felt in the capillaries, and there is an increase in the capillary pressure. Since there is no compensatory increase in the colloid osmotic pressure of the blood, there is an increased filtration of water into the tissues. For a time this may be compensated for by a greater flow of lymph from the affected part. However, this mechanism, like ammonia formation in kidney disease, can compensate only to a certain extent, and when a further increase in venous pressure occurs, edema will result.

Edema occurs first and usually is most marked in the dependent portions of the body, for in these the effect of gravity is not only to increase the venous pressure, but also to retard the upward flow of lymph. Frequently, with a marked rise in venous pressure, there is an interference in emptying of the thoracic duct. The development of ascites, hydrothorax, and hydropericardium causes a further rise in venous pressure by mechanical interference with the filling and emptying of the heart.

Increased capillary permeability brought about by anoxemia of the capillary wall will tend to increase the edema, which is then characterized by a relatively high protein content. In cases of chronic decompensation in which the patients have not eaten adequately, one frequently finds a low serum albumen with resultant decrease in osmotic pressure, and edema fluids tend to accumulate more rapidly.

If there is a tendency to edema formation, an increase in venous pressure, in a person with cardiac disease, the extent of further edema will depend somewhat on the fluid and sodium intake. Edema fluid cannot accumulate in the absence of the building blocks of interstitial fluid, namely, sodium and water. The more salt and fluid the edematous patient takes, the greater will be the edema.

CYANOSIS

Cyanosis in congestive heart failure is an expression of an increase in the absolute amount of reduced hemoglobin in the blood. Although all the blood passes through the lung tissue accessible to air, diffusion is hindered and oxygenation or arterialization is incomplete because of (1) swelling and thickening of the alveolar walls and consequent diminished permeability to oxygen, secondary to pulmonary congestion, and (2) inefficient ventilation from shallow breathing, and hydrothorax.

With an increased venous pressure and diminished circulatory rate, capillary stagnation occurs, oxygen utilization is increased, and there is a greater reduction of the venous blood. Both of these mechanisms, central anoxemia, and peripheral stasis, may play a part.

SUMMARY

The signs and symptoms of congestive heart failure, regardless of the etiological agent or primary site of action, are manifestations of cardiac inefficiency or fatigue, with resultant failure to maintain an adequate arterial circulation ahead, and with resultant stasis in the venous circuits behind.

LIFE-SAVING REMEDIES

The atomic bomb has been widely heralded as the greatest discovery of the war. An atomic bomb can destroy fifty thousand or a hundred thousand lives in a single instant. But the medical discoveries made in this war are likely to save not hundreds of thousands, but hundreds of millions of lives which formerly would have been lost.

Among the greatest of these discoveries are the antibiotic preparations: penicillin, streptomycin, clavacin, patulin, subtilin, the sulfonamide drugs, and many other antibiotic drugs now the subject of experimentation. By our methods of mass production, by the ingenuity of the American people, our nation was able to develop such a vast supply of antibiotic drugs that today all the world looks to the United States for these life-saving remedies. —Morris Fishbein, M. D., in North Carolina Med. J.

GAIN IN LIFE EXPECTANCY

For the first time in our history, the average life expectancy of the American people exceeded 65 years in 1944. The actual figure according to statisticians for the Metropolitan Life Insurance Company was 65⅛ years, almost 16 years greater than in the beginning of the century.

As the result of this remarkable gain, the person of age 20 now has, on an average, as many years of life remaining as the newborn child in 1900. It is striking that whereas according to the earlier mortality, only three-quarters of the babies would attain age 25, under present conditions, three-quarters of them will reach age 57.

The President's Page

Honor where honor is due. Every doctor in West Virginia should be grateful to Dr. R. J. Wilkinson, chairman, and Drs. D. A. MacGregor, E. A. Trinkle, G. O. Martin, Ray M. Bobbitt, George F. Grisinger, R. O. Rogers, William R. Laird, and N. H. Dyer, members of the doctor group appointed by Governor Clarence W. Meadows to work in an advisory capacity with a legislative interim committee studying public health problems. Too much praise cannot be given this group of public-spirited doctors who are giving unselfishly of their time and energy that health conditions in our state might be improved.

As the result of the efforts of this group, coupled with the full help and support of Governor Meadows, the other members of the advisory committee, and the members of the legislative interim committee, our hospital and medical service plans are now protected by an enabling act. This is progress. However, as someone once well said, "every achievement is but a camp for the night." The major work of this group still lies ahead.

We have know for many years that facilities for rural medical care and the treatment and care of the medical indigent are far from adequate in West Virginia. Doctor Wilkinson and his group are compiling statistics which will probably be ready for submission at the next session of the legislature. The outline of a constructive program will also probably be ready for presentation at that time.

Good medical care for rural West Virginia means more than having a doctor in each of the various counties and communities. The chief problem is cost. Even if we had good medical care facilities available in every community in the state—which we do not have—our present socio-economic status would not permit their use by everyone. Our low income group would be without medical care except in emergencies. The chief work of the committee at this time is to find a satisfactory answer to this problem.

When the medical history of our time is written, may it not be said of us, like certain nations in contemporary history, that, in our own defense against centralization of power, it was again a case of too little and too late.

Andrew E. Arnold

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journal, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

A CRITICAL SITUATION

Notwithstanding the publicity given the need for office quarters for veterans returned from military service, the shortage still exists, and many members of the State Medical Association who have returned from service in the Army and Navy are still without adequate office space.

Until needed materials for the construction of office buildings are available, this shortage will continue to exist. The only remedy is the use of surplus space in offices already established. Many doctors over the state have opened their offices to these medical veterans, but crowded conditions and difficulties under which they are working make it imperative that more doctors release space that is not actually needed for their own use. There are as many as seven and eight doctors working "shifts" in some offices in the state. In other words, their office practice is limited to one or two hours a day, with very litle opportunity of using an examining room.

We urge all members of the State Medical Association to take stock immediately of their needs for the next year with a view to helping relieve this critical situation by releasing to their confreres who served with our armed forces surplus space which can be utilized by these medical veterans until new office quarters are available.

WEST VIRGINIA CANCER SOCIETY

The reorganization of the West Virginia Division of the American Cancer Society under the name of the West Virginia Cancer Society, Inc., augurs well for the continued success of this group.

The education of the public here in West Virginia to the necessity for the early diagnosis and treatment of cancer has long since passed the horse and buggy stage. Doctors and laymen in every part of the state are interested in the program, and, where but a short time ago a few hundred dollars per year sufficed to cover all the expenses of the group, thousands of dollars are now contributed by our people and used for educational purposes, the operation of tumor clinics, and the treatment and care of patients in our hospitals. The department of public assistance has contributed materially by making available funds for the care of terminal cases.

Much of the credit for the success of the cancer campaign in West Virginia must go to Mrs. John Speed Harvey, or Huntington, state and regional commander of the Field Army. She continues in this position, and the new board of directors will be under the able chairmanship of Dr. Chauncey B. Wright, also of Huntington. We congratulate the West Virginia Division for having elected at its last meeting in Parkersburg a board of directors composed of men and women who will continue to contribute much of their time to the work of the organization. The personnel of the executive committee is a guarantee that splendid support will be available for the hard work that lies ahead.

DYNAMIC LEADERSHIP

In the July issue, the Medical Annals of the District of Columbia comments editorially on the Presidential Address, "Up to Now," delivered by Dr. Andrew E. Amick, at the 79th annual meeting of the State Medical Association at Huntington. Quoting at length from the address, the publication has this to say concerning the author:

As is well known, most physicians are not particularly well informed where social and economic problems relating to medicine are concerned. In the past this applied equally to officers and members of medical organizations. Presidents elected to serve for only one year were seldom interested nor did they bother to learn what it was all about. They retired from active participation in the organization's affairs at the end of their term and were glad to shed their responsibilities. It appears

now that this situation is no longer quite as common.

Your observer has read many addresses given by presidents upon their being elected to office in recent months, and he is struck by the fact that there is a growing appreciation of the social responsibilities of organized medicine. Some of them approach the issues gingerly, others diplomatically, and a few courageously. Not many have been so severe on their colleagues as Dr. Andrew E. Amick, President of the West Virginia State Medical Association.

Doctor Amick pointed out that the physicians who have returned from the armed services appreciate the fact that the status quo can no longer be maintained "if we are to keep even fragments of free medicine in West Virginia and the Nation." He reminded his listeners that 12,000,000 veterans received excellent medical care and were not too concerned about free choice of doctor or the doctor-patient relationship and that these veterans expect continued good medical care. He proposed that the Association help establish groups, and associate such groups with voluntary prepaid medical and hospital insurance plans.

These are quite revolutionary views for a medical society president. Many physicians will not agree with them. None can deny that this is the dynamic leadership which organized medicine sadly needs in these days.

ALLIES

What the Journal of the Medical Society of New Jersey has to say concerning pharmacists is "right down our alley." Too often we take the pharmacist for granted. How many of us really know him? How many appreciate his great worth to the medical profession? How many fully realize what it would mean to us in these busy times to have to take time out to compound our own medicine? The Journal pays the following merited tribute to the pharmacist:

"One of the physician's quietest and hardest-working allies is the pharmacist. He imprisons himself in his little store, receives an occasional, and too often patronizing, nod from the passing physician, and tries with unending patience to serve the foibles of a hundred citizens who cross his threshold every day. All he asks of the doctor is some token of recognition that pharmacy is an ancient, scholarly and honorable profession, that sometimes he be given a chance to practice that profession instead of being considered a mechanical transmitter of packaged merchandise and, also please, that prescriptions be written a little more legibly.

"He hopes you won't put him on the spot by asking him over the telephone to fill an oral narcotic prescription, and he asks that you respect his right to evaluate his own professional fees, as he respects yours. That really isn't asking too much. In return he is in a position to radiate neighborhood good-will towards your office, to procure somehow even the newest drug that the detail man has just extolled, to suggest a pleasant and compatible vehicle for a seldom-used medication, and once in a while to correct those little clerical errors that we all sometimes make on a prescription blank.

"An occasional visit with the corner pharmacist is worth any doctor's while. So is a joint meeting between the medical and pharmaceutical societies. We are brethren in the healing art. And brothers should know each other better."

We quite agree with everything that has been said by the Journal of the Medical Society of New Jersey with reference to our hard-working ally, and we are not among those who hold that there is to close an alliance between medicine and pharmacy. Of all the professions that should live and work together in the closest of harmony, medicine and pharmacy stand at the top of the list.

Let's get better acquainted with our pharmacist today. Regardless of the rush at our office, let's take time out to pay him a visit frequently that he might the better understand us and we the better appreciate him.

HOSPITAL TREATMENT PREFERRED

All control of communicable disease begins with notification that the disease is present in a certain person at a given address. Verification of the diagnosis may be needed. Search for contacts must be prompt and complete. Each person capable of infecting others must be so controlled as to be no hazard to the community. In tuberculosis patients, this is accomplished preferably by admission to a tuberculosis hospital. Finally, since tuberculosis is a silent and insidious invader, reliance upon complaint of illness by the patient or diagnosis without X-ray of the chest cannot longer be tolerated.—Tuberculosis Abstracts, Sept., 1946.

SOLD DOWN THE RIVER

The suggestion has frequently been made that amendments should be proposed to the sickness insurance title of the latest W-M-D bill and that the bill might thus be made acceptable to freedom-loving Americans. This is like asking a builder to remodel a federal penitentiary into a California bungalow. One cannot have freedom within the framework of compulsory sickness insurance. It is political and bureaucratic doubletalk to speak of freedom and compulsion as conditions which may be enjoyed simultaneously. Perhaps the people of America wish to seek health under a scheme of nationalized medicine. But I doubt if that is the case. To the extent that they are "sold" on the idea they have been "sold" by glittering promises that cannot be fulfilled. And, I might add, they have been sold down the river.—Margaret Shearon in The Monitor.

General News

WEST VIRGINIA CANCER SOCIETY ORGANIZES AND ELECTS OFFICERS

The reorganization of the West Virginia Division of the American Cancer Society was completed at a meeting held at Parkersburg, August 1, 1946. The name was changed to West Virginia Cancer Society, Inc. Dr. Chauncey B. Wright, of Huntington, presided as chairman at the meeting, and Mrs. John S. Harvey, of that city, state and regional commander of the Field Army, served as secretary.

The following officers were elected for the ensuing year: Chairman, Dr. Chauncey B. Wright, Huntington; vice chairman, Dr. Thomas Bess, Keyser; secretary, Charles Lively, Charleston; treasurer, Homer Gebhardt, Huntington.

The following were elected to serve for one year as members of the board of directors: Dr. Thomas L. Harris, Parkersburg; Dr. Russell Bailey, Wheeling; Dr. H. H. Haynes, Clarksburg; Dr. Robert J. Reed, Jr., Wheeling; Dr. J. Ross Hunter, Charleston; Dr. C. C. Fenton, Morgantown; Dr. W. G. J. Putschar, Charleston.

Dr. Cole D. Genge, Huntington; Dr. H. H. Boice, Parkersburg; Dr. C. B. Wright, Huntington; Dr. R. O. Rogers, Bluefield; Dr. Elizabeth McFetridge, Shepherdstown; Dr. James M. Bonnar, Fairmont; and, Dr. Thomas Bess, Keyser.

James Paull, Wellsburg; Robert J. Riley, Wheeling; Jesse Bloch, Wheeling; Mrs. J. D. Francis, Huntington; Mrs. D. W. Stubblefield, Charleston; Charles Lively, Charleston; Ted McDowell, Beckley; Arthur B. Koontz, Charleston; Sol Hyman, Huntington; and J. R. Poland, Martinsburg.

The newly created executive committee will be composed of Dr. J. Ross Hunter, Charleston; Dr. Frank V. Langfitt, Clarksburg; Dr. Thomas L. Harris, Parkersburg; Dr. Russell B. Bailey, Wheeling; Dr. R. O. Rogers, Bluefield; Mr. Arthur B. Koontz, Charleston; Mrs. E. L. Goldsboro, Shepherdstown; Dr. Chauncey B. Wright, of Huntington, chairman of the board of directors; Homer Gebhardt, of Huntington, treasurer; Mrs. John S. Harvey, of Huntington, state commander of the field army; and, Dr. Paul R. Gerhardt, of Charleston, director of the division of cancer control, state health department.

Several routine matters were acted upon at the meeting ,and it was announced that a special meeting of the executive committee will be held early in September for the purpose of considering several matters of importance that were not acted upon at the Parkersburg meeting.

The following is a copy of the constitution and by-laws which were unanimously adopted at the Parkersburg meeting:

CONSTITUTION

Article I—Name

The name of this organization shall be the West Virginia Cancer Society, Inc. It shall be an affiliate of the American Cancer Society. It shall be a scientific, charitable, non-profit corporation.

Article II—Object

The object of the organization shall be the saving of human life and the relieving of human suffering by service to the cancer patient, and through education, and by financing research into the causes and cure of cancer.

Article III—Membership

Membership in the organization shall be open to any person upon payment of the annual dues of five dollars. Each adult member, who is a citizen of the state of West Virginia, shall, if present in person, be entitled to one vote on all matters voted upon at the annual meeting.

Article IV—Annual Meeting

There shall be a meeting of the membership annually at a time and place to be designated by the board of directors for the purpose of electing officers and directors, and the transaction of such other business as may properly come before it. Members present at any such annual meeting shall constitute a quorum.

Article V—Organization

In addition to the general membership, the organization shall consist of the appropriate officers, as required by the by-laws, of a board of directors, and of an executive committee.

Article VI—Amendments

This constitution may be amended by the majority vote of the membership at any annual meeting.

BY-LAWS

Article I

Board of Directors

Section 1. Composition. There shall be elected by majority vote of all voting members present at the annual meeting a board of directors broadly representative of all sections of the state of West Virginia. It shall consist of twenty-five members, each to take office immediately upon election and to serve for one year, or until his successor is elected and qualified. Not fewer than fifteen members shall be doctors of medicine. The board shall elect from its members its own officers: a chairman, a vice chairman, and a secretary, each of whom shall perform the duties usually appertaining to the office. The board of directors may create an advisory committee, unlimited as to numbers, as an aid to promoting the programs of the Society. The board shall elect an executive committee as hereinafter provided.

Section 2. Duties and Powers. The board of directors shall be empowered to select the objectives, and to formulate the general policies and the overall programs of the society.

Section 3. Quorum. Seven members of the board, of whom at least four are doctors of medicine, shall constitute a quorum for the transaction of business.

Section 4. Meetings. The board of directors shall meet not less than once each year, at a time and place to be designated by the president. Upon

the request in writing of not fewer than five members of the board, or upon the request of the executive committee, the president shall call and convene the board in special session for the transaction of such business as may properly come before it.

Section 5. Vacancies. The board of directors shall have power to fill any vacancy in its membership, or among its own officers.

Section 6. State Treasurer. The board of directors shall annually elect a state treasurer, to serve for a term of one year and until his successor is elected and qualified. The state treasurer shall receive, account for, and disburse, on proper requisition, the moneys of the society.

Article II

Executive Committee

Section 1. Constitution. The executive committee shall consist of 11 members, to be elected annually by the board of directors, each to take office immediately upon election and to serve for one year, or until his successor is elected and qualified. The chairman of the Board of Directors, the state treasurer, the commander of the Field Army, and the director of the division of cancer control, state health department, shall, by reason of their positions, be members of the committee. In addition, the board of directors shall elect seven members to the committee, of whom not fewer than five shall be doctors of medicine. The committee shall elect from its members its own officers: a chairman, a vice chairman, and a secretary, each of whom shall perform the duties appertaining to the office. The committee may create an advisory council, unlimited as to the number of members but with membership limited to doctors of medicine.

Section 2. Duties and Powers. The committee shall put into execution the policies and programs of the society; supervise and direct the activities of the Field Army; consider and approve or disapprove all local projects; nominate, for consideration by the American Cancer Society which shall appoint, a state campaign chairman and the commander of the Field Army; and maintain contact with the county units. As the administrative agency of the society, the committee shall have complete charge of the management and business affairs thereof, including the authority to employ and discharge paid employees.

Section 3. Quorum. Five members of the committee, of whom at least three are doctors of medicine, shall constitute a quorum for the transaction of business.

Section 4. Meetings. The committee shall meet for the transaction of business not fewer than four times a year, at times and places it shall designate. On the request of three members, or on the call of the chairman, it shall meet in special session to transact such business as may properly be brought before it.

Section 5. Vacancies. The committee shall have power to fill any vacancy in its membership, or among its own officers.

Section 6. Committees. The committee shall have power to create any special or sub-committees it deems advisable to facilitate the work of the society.

Article III

Field Army

Section 1. Organization and Direction. The Field Army, under the supervision and direction of the executive committee, shall effectuate the raising of funds, the educational and service programs of the society, as formulated by the board of directors.

Article IV.

Finances

Section 1. The fiscal year shall be from September first to August thirty-first.

Section 2. The state treasurer shall be the custodian of the funds of the society; shall keep proper records of all fiscal transactions; and shall disburse such funds upon the written requisition of the executive committee, or such officer or agent as the committee may designate.

Article V.

Corporate Seal

Section 1. The corporate seal of the society shall be circular in form with the words "West Virginia Cancer Society, Inc.," on the circumference, and the word "Seal" in the center.

Article VI.

Amendments

Section 1. These by-laws may be amended by the membership present and voting at any annual meeting, or by the board of directors at any regular or special meeting. Any revision made by the board shall be subject to ratification by the membership at the next annual meeting.

Article VII.

Continuity

Section 1. Pending adoption of the constitution and by-laws here presented by the committee appointed by the executive committee of the West Virginia Division Field Army, American Cancer Society, to draft a constitution and by-laws, the said division shall continue in authority. Immediately upon adoption of this proposed constitution and by-laws, the same shall be in effect, and the West Virginia Cancer Society, Inc., shall succeed to all the authority, rights, powers, duties, funds, and responsibilities of the West Virginia Division Field Army, American Cancer Society, which shall be dissolved; except that the executive committee thereof shall elect a board of directors as required by these by-laws.

MILITARY SURGEONS TO MEET

The annual convention of the Association of Military Surgeons of the United States will be held in Detroit, October 9-11. The convention will feature twenty-five panel discussions relative to the various activities of military surgeons. All combat medics and naval corps men are invited to attend. There will be no registration fee. Applications for reservations should be mailed to Col. Bert R. Shurley, chairman, Hotels Committee, 1005 Stroh Building, Detroit 26, Michigan.

COUNCIL AUTHORIZES PRESIDENT TO EXECUTE AGREEMENT WITH VA

A special meeting of the Council was held at Parkersburg Sunday, August 11, for the purpose of considering the request of the Veterans Administration that formal contract be signed between the State Medical Association and the Veterans Administration for out-patient care of veterans. A total of 775 members of the State Medical Association have accepted appointment as fee designated physicians under the program which became effective in March, 1946. All states in which the program has been placed in operation have been requested to ratify the agreement. The provisions of the agreement are substantially the same as printed in full in the program which was mailed to each member of the State Medical Association. The fee schedule remains the same.

The matter was discussed in detail by Dr. Claude B. Smith, chairman of the Veterans Affairs Committee, and Dr. Ralph J. Jones, Jr., a member. They pointed out that the agreement constitutes a formal ratification of the acceptance by members of the State Medical Association of appointment as fee designated physicians.

The Council authorized and directed the president, Dr. Andrew E. Amick, of Charleston, to sign the agreement on behalf of the State Medical Association.

The main purpose of the agreement, as stated in the preamble, is for the State Medical Association "to collaborate with the Veterans Administration in a manner which will provide the best possible medical care for veterans residing in the State of West Virginia."

A few routine business matters were acted upon at this meeting. Dr. S. G. Moore, of Harpers Ferry, member of the B-R-T Medical Society, was unanimously elected to honorary life membership in the State Association.

Mrs. F. Carl Chandler, of Bridgeport, representing the Woman's Auxiliary to the State Medical Association, discussed the matter of the proposed essay contest in the high schools of West Virginia in which it is sought to develop the best ideas against the enactment of legislation providing for the socialization of medicine. The Council referred the matter to the auxiliary advisory committee for the submission of a program for consideration at a future meeting.

The meeting was attended by Dr. Thomas L. Harris, chairman; Drs. J. E. Wilson, A. R. Sidell, Andrew E. Amick, J. B. Thompson, T. G. Reed, R. D. Gill, John P. Helmick, Guy H. Michael, E. A. Trinkle, J. L. Patterson, and Carl E. Johnson; and Mr. Charles Lively, secretary **ex officio.**

ACS MEETS IN CLEVELAND

The annual Clinical Congress of the American College of Surgeons will be held December 16-20, 1946, at Cleveland, Ohio. The meeting was originally scheduled for New York City, but was moved to Cleveland because of lack of hotel facilities in New York.

HILL-BURTON BILL LAW

The Hill-Burton Bill (S. 191), authorizing the expenditure of $1,125,000,000 for a five-year hospital construction program, has been enacted into law. Final action was taken just before Congress adjourned, and President Truman affixed his signature after the members had left for their homes. The bill authorizes the federal government to pay one-third of the cost of building and equipping new hospitals and health centers, and $375,000,000 has been appropriated to finance the program. Two-thirds must be contributed by sponsors of individual projects, and both private and public hospitals may share in the program.

The proportionate share for each state of the total federal appropriation for survey and planning will be determined on the basis of population. A total of $3,000,000 is authorized for state-conducted surveys. These must be made preliminary to the granting of federal funds for construction. Allotments for the actual construction of facilities will not be made until the state plan based on the survey findings has been approved by the United States Public Health Service. Federal funds must be matched two to one in defraying expenses of the survey. Under the act, the surgeon general will be assisted in establishing standards by a newly created federal hospital council consisting of eight members to be appointed by the federal security administrator.

The bill provides that states must designate a single state agency to carry out the survey and planning, and must appoint a properly qualified advisory council to consult with a state agency.

The West Virginia Legislature, in 1945, anticipating the passage of the Hill-Burton Bill, passed a bill designating the state health department as the sole agency to cooperate with the federal government in its hospital construction program. The Governor was empowered to appoint an advisory committee to consult with the state health department in the hospital construction program.

WEST VIRGINIA HEART ASSOCIATION

The annual meeting of the West Virginia Heart Association will be held in Huntington, Thursday, October 10. Ward rounds will be arranged for the morning at the Veterans Hospital, and possibly at other hospitals in Huntington. Roundtable conferences will be held in the afternoon, with ample time for questions. In the evening, there will be a joint meeting with the Cabell County Medical Society, and two eminent cardiologists will attend as guest speakers.

The twelve regional veteran hospitals in this district have been invited to send representatives to the meeting. All members of local medical societies in the tri-state area are invited to be present. Dr. O. B. Biern, of Huntington, is president of the West Virginia Heart Association and questions for the afternoon roundtable should be mailed to him in advance of the meeting.

HEALTH DEPARTMENT RESIGNATIONS

Dr. Charles E. Hedges, director of the bureau of communicable diseases, state health department, has resigned in order to accept the position of county health officer of Kings County, Hanford, California. His resignation was effective July 30, 1946.

Mr. H. Gardner Bourne, who has been acting director of the bureau of industrial hygiene, tendered his resignation August 1. He has accepted a position as engineer with the bureau of industrial hygiene, Ohio State Department of Health, at Columbus. Mr. Bourne has been acting director of the bureau since the resignation of Dr. C. Scott McKinley last March.

Mr. Frank L. Hungerford, chief of business management, has tendered his resignation. No successor has been appointed. The duties of the office will be handled for the present by the personnel of the fiscal offices.

DOCTOR OFFNER RESIGNS

Dr. J. E. Offner has resigned as state health commissioner, effective September 1. He expects to return to Fairmont, where he will devote full-time to the practice of his specialty of surgery. No successor has been appointed.

Doctor Offner was appointed state health commissioner July 1, 1943 by former Governor M. M. Neely. At that time he was serving as superintendent at the Weston State Hospital (mental), to which office he was appointed in 1943 by former Gov. H. G. Kump. In accepting Doctor Offner's resignation, Governor Meadows spoke of him as an eminent administrator, and commended him for the "fine work performed under his direction, and the great strides made by the state health department under his guidance."

Speaking of the appointment of a successor, Governor Meadows said: "I shall endeavor to secure the services of an eminent physician well qualified for this post, as I feel that one of the greatest governmental services which can be rendered to the people of our state is that concerning health.

"Cooperation between the medical profession and the state health department and the citizens in general is something to be highly desired, and the person to be selected for this important position must be one who will carry forward in this most important and essential field of governmental activity."

SOUTHERN MEDICAL AT MIAMI

The fortieth annual meeting of the Southern Medical Association will be held in Miami, Florida, November 4-7, with headquarters at the Hotel McCallister. Scientific and commercial exhibits will be set up in the city auditorium just a short distance from the headquarters hotel. A number of other organizations will meet conjointly with the S. M. A. at Miami, including the Southern Chapter of the American College of Chest Physicians, and the American Society of Tropical Medicine.

INDUSTRIAL HYGIENE FOUNDATION

The annual meeting of member companies of the Industrial Hygiene Foundation will be held at the Mellon Institution in Pittsburgh, Thursday, November 7. The program will deal with broad subjects of managemental interest respecting the well being of men at work. Conferences for physicians from member companies and for plant engineers are tentatively planned for November 6. A conference for chemists and toxicologists is being considered for November 8. Full information concerning the program may be obtained from John F. McMahon, Managing Director, 4400 Fifth Avenue, Pittsburgh 13, Pennsylvania.

AHA NAMES LIAISON OFFICER

Rear Admiral Dallas G. Sutton (MC), USN (Rt.), has been appointed director of study of government hospital relations, with headquarters at the Washington Service Bureau Staff of the American Hospital Association, 1934 K Street, N. W., Washington, D. C. Admiral Sutton will serve as liaison officer between the Association and the federal government in matters concerning the federal hospital program and will assist in the coordination of civilian and federal hospital facilities.

At the time of his retirement in April, Admiral Sutton was serving as inspector of all east coast activities of the Naval Medical Department.

VA CLAIM NUMBER IMPORTANT

Dr. Claude B. Smith, of Charleston, chairman of the Veterans Affairs Committee of the State Medical Association which negotiated an agreement with the Veterans Administration at Washington for out-patient care, reports that there has been some little confusion concerning requests for authorization for examination and treatment. To clear up any misunderstanding, he states that participating physicians should make sure that the disability of the veteran is service-connected or service-aggravated. This fact must be established before authorization can be obtained for medical and surgical care without cost to the veteran.

If the veteran has a claim number, this is prima facie evidence of service-connection, and the request for authorization under the claim number itself will expedite approval.

If the veteran does not have a claim number, application for such must be filed by him with the Veterans Administration before authorization for medical and surgical care can be obtained under the program.

POTOMAC VALLEY ELECTS

Dr. J. H. Wolverton, Jr., of Piedmont, was recently elected president of the Potomac Valley Medical Society, and Dr. E. A. Courrier, of Keyser, was reelected secretary.

THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII OCTOBER, 1946 No. 10

MEDICAL CARE: WHOSE RESPONSIBILITY?*

By CLARENCE W. MEADOWS
Governor of West Virginia
Charleston, West Virginia

In our complex society, any approach to the problem of medical care, it seems to me, leads at once to a question of responsibility. After responsibility has been placed, and assumed, then arises the question of policy and methods.

There is today much agitation for what many in your profession regard as a paternalistic system of public health. Some of you see in this, and perhaps rightly, a threat to the morale of the very people it would serve. Whatever may be the right policy, we know that today there is an interdependence in community life that answers in the affirmative, on a very practical basis, the question, "Am I my brother's keeper?"

Being our brother's keeper is not just a sentimentality. It is to a marked degree a necessity. Responsible citizens realize that under modern conditions a destitute, diseased element of our population is a liability and a threat to the rest of the population. In our hearts and in our heads we know that we must have less sickness, less disease and less contagion in our human family. Obviously, then, we cannot absolve society from responsibility in this vital matter of medical care for many of our people.

For those who demand unlimited government health service, and for those who oppose what they term "Socialized" or "Politicalized" medicine, there surely can be a happy compromise. Can we not find a prudent, workable middle course which would represent a genuine advance over ways that were good once, but are not good enough anymore?

Society—that is to say, its leadership—must consider ever new ways to extend medical service. I do not presume to speak on medical science. In this realm miraculous progress has been achieved to make man's life more useful and extend its expectancy. Society's problem is to make the ever-increasing benefits of medicine available to the helpless and the less favored among us, in a way that may bless both the patient and the practitioner.

CARE OF THE INDIGENT

With the needs of our own State in mind, let us consider first of all the care of the irresponsible and indigent.

There is much merit, it seems to me, in a recommendation by certain authorities to the effect that in each county, or group of counties, a supervisory board be appointed to assure proper care for such helpless people.

This board should consist of public-spirited citizens of known fitness, and wise physicians. In cooperation with the County Medical Society, the board should be in position to make available at a Health Center the best physicians to be had. For their services they would be paid a reasonable fee. Included in the program would be a consultation service by specialists in various fields.

Under such a plan almost the same care could be afforded as in private clinics. Service would be extended to patients in their homes, as well as to those in hospitals. In order that they might have as

*Presented before the 79th annual meeting of the West Virginia State Medical Association at Huntington, May 14, 1946.

good attention as those who are able to pay, the County Medical Association would provide the best doctors obtainable. All this service might well be at county expense, even if it required a special levy.

In the case of smaller, less prosperous counties, an arrangement might be worked out whereby several counties would have a Health Center in common.

THE MENTALLY AND PHYSICALLY HANDICAPPED

A second need of great urgency presents itself in the field of treatment for the mentally and physically handicapped.

There are many such people who become, or should become, inmates of institutions for the insane, the blind, the deaf, the crippled, and the tuberculous. Much as we have been able to help these unfortunates, we know, and you of the medical profession know, that far more needs to be done. Your further cooperation in making this need clear and compelling to more and more of our citizens will pay dividends in the restored usefulness of many who are now practically wards of the State.

Take insanity. In itself it is no disgrace; but if society, if we of West Virginia, neglect to provide the proper care for its victims, that neglect will surely be a disgrace. Under the stress, strain and high tempo of contemporary life, we are witnessing a dreadful increase in insanity. Our young people may one day see it top the list of human diseases.

You know that the State government is not unaware of the need to provide humane and adequate care for these afflicted ones. Scores of insane men and women who, for want of hospital space, were confined with criminals in county jails have been placed in the pleasant and helpful surroundings of the new State hospital at Barboursville. When funds have been available, the Board of Control, with the cooperation of the Health Department and other State agencies, has markedly improved the facilities and services of all our hospitals for the insane. I am confident that important needs in these institutions will not be overlooked by the special legislative committee which, with able, distinguished physicians on its advisory staff, is exploring the field of public health in West Virginia.

Certainly, better plants are needed to care for the insane. This is true not only in West Virginia but in many other States. According to a recent picture story in Life Magazine, some of the States have appalling medieval conditions in their asylums. Here and everywhere, it is the responsibility of society to see that these institutions are kept modern. They should have fire-proof buildings, every therapeutic facility of latest type, a sufficient number of trained personnel, and only expert psychiatrists in charge.

As a practical step toward meeting the needs of such institutions, including those for the physically handicapped, it has been suggested that they be made subject to an authority of more weight and power than the present County Boards.

This plan calls for county boards (such as function for the indigent) which would be under the control of a State Supervisory Board consisting of prominent physicians and humanitarian laymen working together. The State Board would not only supervise and assist the county board, but also have the oversight of all these institutions.

These plans, which have evolved from a study by socially minded doctors, deserve consideration by our most thoughtful and forward-looking citizens.

HOSPITAL AND MEDICAL INSURANCE

There is another group for whom a greater measure of health service should be provided. It is the group of persons of modest or middle-class incomes.

I take note of a suggestion that the proposed State Supervisory Board formulate a plan of Hospital and Medical Insurance to cover people in such income groups. To what extent insurance of this kind would, if at all, enter into competition with the associated hospital services, I would not be prepared to say without further knowledge of the plan.

We know that the people are generally recognizing the value of health insurance in various forms. They realize that it should be as much the right and duty of anyone to buy that type of protection as to buy life, fire, casualty or public liability insurance.

There are other observations I might make as Governor of your State. I think it is widely understood that West Virginia has accomplished much in the realm of public health with the limited funds available to State and local agencies. The State Health Department has made progress in the direction of cancer control and in the prevention of disease, as well as in other fields of health protection. Just the same, we do not like to admit that West Virginia is spending only 33 cents per capita for all public health activity, whereas one dollar per capita is recommended by the American Public Health Association. But the Health Department is working toward a program of health coverage for every

county in the State. Such a program will require Federal as well as State and local funds. Your cooperation in formulating this program will be indispensable.

HOSPITAL TEACHING FUNCTIONS

With your cooperation, the Legislature three years ago enacted a law whereby students who finish the two-year medical course at West Virginia University may continue their education in the Medical College of Virginia. As a further compensation for our lack of a four-year medical school, it has been recommended that every hospital have a teaching function which might take advantage of the wealth of clinical material at hand.

This recommendation, in my humble judgment, is sound and feasible. By making each hospital a teaching center, we would afford to all physicians who are interested in professional progress an opportunity for graduate study and conferences.

Therein lies the dual responsibility of both the medical fraternity and the State. I am sure that no group in our society is in better position than yours to impress upon all our citizens the usefulness of the teaching function in all our hospitals.

PUTTING "POLITICS" IN MEDICINE

Now I trust that I have not injected "politics" into medicine, at least in the worst sense of the term. The word has been degraded somewhat from its best meaning. Too many of us misunderstand it. A few of our physicians, I suspect, have an unfortunate conception of it. And there are politicians who consider politics their private domain, marked "the public stay out," at least, after they have been elected.

We know that politics, in its true sense, and especially in a democracy, is that which enables us to have government by consent of the governed, in the hope of assuring opportunity to all and "the greatest good to the greatest number." Who would say that medicine is not in the category of the greatest good? Or that it should not be extended to the greatest number?

Anything so essential as medicine to the well-being of a growing, articulate democracy must inescapably find itself in politics, or politics in it. The problem is how, through the cooperation of the medical profession and the State, we may best serve the individual and the public. The solution lies chiefly with our leadership, with your Association and the most enlightened men and women in our public life.

Now I hope that all I have said adds up to this thought: That what you want to do, what we of the State government want to do, and what all our taxpayers want to do, is to obtain for every man, woman and child in West Virginia by democratic means and in the spirit of true humanity the fullest benefit of the marvelous achievements of Medical Science.

Especially do we wish to do this, I am sure, for the less fortunate classes of our population. This is not charity, not paternalism, but it is only good social housekeeping which will benefit us all.

It is, indeed, a responsibility from which society in general and the medical profession in particular cannot be absolved.

MEDICINE MARCHES ON

The intangibles of medical practice, as represented in our concepts and ideals of service to humanity and the welfare of our patients, are facing obliteration in the strangling grip of socialization and regimentation. Efforts to encompass the tangibles of our economic life are rapidly spreading as the tidal forces of bureaucracy send out more and more engulfing movements. Other problems continue to demand solution. The release of medical officers from the armed forces and programs of assistance in their return to practice; the problem of rehabilitation of the veteran and of the physically handicapped in industry; the energetic programs for physical fitness; the inauguration of prepayment plans for medical and surgical care; the question of provision of adequate hospital and health center facilities—all these are but a few of the major situations confronting medical practice today.

In spite of these economical phases that require so much and such constant attention, medicine has not paused in its rapid strides in scientific progress: the gold of penicillin outcures the remarkable sulfa preparations; syphilis treated in nine days; gonorrhea conquered and non-infectious in a single day; deadly pneumonia laid low in hours; streptomycin, promin, benadryl, DDT, and ANTU provide new promise, and were they not modern medicine they would be miracles.

And, were it not for all these factors offering hope in the present for progress in the future, medicine could not long survive. For the opportunity to lend our efforts in restoring the hope of a new world; for the power and proficiency to aid the comforts of mankind; for the confidence and understanding of those we serve, the medical profession will continue to carry its proud banner of achievement.—N. K. Forster, M. D., in J. Ind. St. Med. Assn.

PROSTATIC OBSTRUCTION AND THE MENTAL PATIENT*

By HOWARD A. HOFFMAN, M. D.**
Elkins, West Virginia

Prostatic obstruction occurs roughly in 50 per cent of men over the age of fifty. As my chief used to say to patients asking the perennial question, "What brought this on, Doctor?", it doesn't matter if you've been good or bad, rich or poor, married or single, if you live long enough you have an even chance of developing prostatism. In this group of men with prostatic disease, about 20 per cent will have cancer. (Reports from various large clinics range between 17 per cent and 23 per cent.) At present there are 2,142 male patients in this hospital over the age of fifty. In view of this, and when we consider that past or present behavior has no bearing on the matter, we should expect to find right here on these grounds about 1,000 patients suffering from urinary obstruction, 800 cases being due to benign prostatic lesions, and 200 being due to malignant disease. The situation parallels that in any community of 7000 persons of like age, and takes on even greater importance in a hospital community where we are expected to detect the disease and institute adequate treatment.

You are more aware than I of the difficulties of surgical diagnosis in a mental hospital. Many physicians wait for the patient's description of hestitation in initiating the urinary stream, decrease in the calibre and force, terminal dribbling and other symptoms before making a rectal examination, noting a chronically distended bladder, or determining the residual urine. But in psychiatric institutions, dealing with patients who may be noncommunicative, negativistic, arteriosclerotic, and mentally deficient, one must rely on objective findings. The doctor must take the entire initiative in making the diagnosis. Fortunately, both hyperplasia and carcinoma of the prostate usually can be determined by a simple rectal examination. Yet how many male patients in this hospital have been here on one service or another for enough years to develop prostatic disease but have not had a rectal examination since their admission? The patients who become acutely ill and have to be admitted to the Medical & Surgical Building certainly are checked; but there are thousands who rarely require this service. The physical suffering of these patients from benign obstruction may never be appreciated, and early, curable cancer may go undetected.

I need only to recall that during the year and a half I spent at the Medical & Surgical Building I witnessed only 2 prostatectomies. If we recall the figures mentioned regarding the incidence of prostatism in the general population, we may justifiably conclude that we are missing something. I suspect the same situation prevails in most mental hospitals in the country, several of which are represented here today.

Prostatic obstruction results in progressive difficulty in starting the urinary stream and in incomplete emptying of the bladder. The poorly emptied bladder refills sooner than normal and this results in frequency of urination. The residual urine, because of stagnation, becomes infected, sets up a cystitis, and causes burning or "scalding" on urination. The infection spreads and involves the upper urinary tract. Pyelonephritis and hydronephrosis may develop, with chills, fever, and loin pain. Renal function becomes impaired; the catabolites cannot be effectively excreted; the blood nonprotein nitrogen rises; and unless relief of obstruction is afforded, the patient dies in uremia. The pathologic advance is so insidious that one is likely to ignore the process until irreversible changes have occurred, or until the patient is in such poor general condition that surgery is fatal.

Over and above the tremendous advances in anesthetic and surgical technique, the enlightenment of the patient has helped greatly to reduce the incidence of morbidity and mortality from prostatic obstruction. The layman now frequently makes the diagnosis himself at the first signs of dysuria. He presents himself more readily, requesting surgery, largely because he knows that safer and less strenuous surgical procedures are available, particularly with the popular discussions of transurethral methods requiring no open operation. But when we are dealing with psychotic patients, the first responsibility falls upon the psychiatrist. When we take the often repeated statement that there are more beds throughout the country for mental patients than for all other types of illnesses put together, and consider this in relation to the incidence of prostatism, this responsibility becomes quite emphasized.

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*Presented before the Annual Meeting of the Medical Society of Saint Elizabeth's Hospital, Washington, D. C. (Federal Psychiatric Hospital, USPHS), April 27, 1946. Published concurrently with the Quarterly Review of Psychiatry and Neurology.

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In an effort to get some idea of what to expect when making routine searches for prostatic disease, I have looked up the last hundred prostatic operations I performed at the Massachusetts General Hospital. The series was unselected and several interesting facts were learned.

We can classify these cases for practical purposes into 3 groups, based chiefly on the rectal examination. Group 1 is the ordinary hyperplasia or so-called benign prostatic hypertrophy, and this comprises 76 per cent of patients presenting themselves with urinary obstruction. Group 2 is the class with carcinoma of the prostate, and comprises 17 per cent. Group 3 may be called endoscopic obstruction, because the prostate feels normal rectally. These include median bar, bladder neck contracture, fibrosis of the bladder neck, and unaccompanied middle lobe hypertrophy. These comprise 9 per cent.

One ordinarily has no difficulty in detecting the lesions of the first two groups since the diagnostic method of rectal palpation is available to everyone. It may at times be difficult to be sure whether you are faced with a hyperplastic or malignant gland, but one can at least be suspicious. It is only in the third group that consultation is necessary. Here a normal prostate is felt per rectum, and cystoscopic study will be needed to make a diagnosis. Whenever a patient in the vulnerable age group is observed by a ward attendant to have dysuria, when routine urinalysis elicits infection, or residual urine is greater than 1 ounce, cystoscopic examination is indicated. As I said, in 91 per cent of the cases, rectal examination alone will uncover the trouble. Such a routine examination alone would be a notable contribution to the relief of suffering.

In this series it is interesting to note the proportions of the various procedures used for relief of obstruction; 83 per cent were handled by transurethral electro-resection, and 17 per cent by open surgery (of which 8 were perineal prostatectomies and 9 were by the suprapubic method). These proportions differ considerably from one clinic to another, depending chiefly on the training and preference of the particular operator.

It is beyond the scope of this paper to discuss the advantages and disadvantages of the different methods. Suffice it to say that the development of transurethral prostatic resection is particularly important to the mental patient, for with this method alone the time required for indwelling drainage tubes in the postoperative period is reduced from several weeks to several days. It is not infrequent that patients who have had an open enucleation require the presence of urinary drainage tubes for from three to four weeks. We cannot risk for so long a time the dire consequences of a psychotic patient disengaging himself from his life line. After transurethral surgery on the other hand, an indwelling catheter is rarely needed longer than three days, quite commonly only two or one; and it can be hoped that no tubing at all will be required in postoperative management as soon as urosurgeons become more adept at electrocoagulative means of controlling bleeding, or when chemical hemostatics (topical thrombin, etc.) are readily available.

There are other advantages to the mental patient of the transurethral approach. No dressings are required. The patient may be permitted out of bed the morning after operation. There are no stitches to be removed. These are minor considerations in a general hospital but very important when dealing with psychotic persons. Further, the patient can be returned to the psychiatric ward in just few days and thus continuity in the care of his mental disturbance is more readily attained than is possible while in the infirmary or on the surgical service. Finally, the elderly patient is much less traumatized and shocked by the transurethral approach than by any open method of enucleation. The 94 year old patient in our series was as free from postoperative irregularity as was the 45 year old man.

A word on quantity. One often hears in a discussion of transurethral surgery a great deal of reference to the amount of tissue removed. Even among casual urologists, it is not unusual to hear a surgeon boast of the number of grams of tissue he removed, just as he would about his bowling score. I would warn you not to be impressed by such talk. It simply doesn't matter how much tissue has been removed so long as (and this is very important) *all* the "adenomatous" tissue, right down to the prostatic capsule, has been gotten out. In the group of cases under discussion, I have removed all the way from 1 gram in one patient (median bar) to 125 grams in another (B.P.H.) with equal results following equally severe urinary difficulties. On the other hand, I have removed what might be called an average amount of material (45 grams) from a patient, only to find that he was just as obstructed as before. This type of patient will not be well until a second cystoscopy is done and the remaining tissue detected and removed. In other words, the important feature is that a true transurethral prostatectomy be carried out and not merely a transurethral resection.

SUMMARY AND CONCLUSIONS

The prevalence of prostatic obstruction in the general population is emphasized in relation to the suspected incidence in mental patients.

When it is appreciated that almost 50 per cent of men over 50 years of age will develop prostatism and that approximately one-fifth of these will have prostatic cancer, the importance of adequate diagnosis becomes obvious.

The significance of this is stressed to the institutional psychiatrist because he deals with patients who are likely to be unable to describe their symptoms.

A series of 100 consecutive cases of prostatic obstruction is presented to indicate that 91 per cent of such difficulties (of which 17 per cent were due to malignancy) were easily diagnosed by rectal examination. Only 9 per cent required specialized study to complete the diagnosis on an objective basis, as is required with psychotic patients.

Transurethral prostatectomy has many advantages over open enucleation when a method of surgical relief is required. These include a less traumatizing operation without overt incision, a much shorter postoperative stay of indwelling catheter, the absence of dressings, the absence of stitches to become infected or to be removed, and the earlier return of the patient to his base ward for continuity of psychiatric care.

A plea is made for routine periodic rectal examination in all male patients over fifty in every mental hospital. These patients are unable to articulate their urinary difficulties. To relieve these patients of their physical as well as their mental suffering is unquestionably our philosophy. Let's make it our practice.

FALSE HOPES

The physician who has under his care a patient with Hodgkin's disease, leukemia or some allied disorder is not infrequently confronted with the difficult task of persuading the family, in its desperation, not to cast about for some alleged cure of the disease rather than to adhere to the more conventional forms of therapy proved by experience to be beneficial. This desire on the part of the family is easy to understand; for, on one hand, the physician in charge must, of necessity, point out the almost certain fatal outcome, and on the other, the layman is quick to grasp at straws and all too ready to believe rumors of true cures. The situation is made even more difficult when the lay press publishes premature and distorted accounts of purely experimental measures or when a physician, in an unguarded moment, speaks of a cure when, in actuality, he is referring to a therapeutic measure under trial that, at the moment, appears to offer some promise.—New England Journal of Medicine.

SPONTANEOUS RUPTURE OF THE NORMAL AND ABNORMAL SPLEEN*

By HUGH A. BAILEY, M. D., F. A. C. S.**
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Traumatic rupture of both the normal and abnormal spleen frequently is encountered. Spontaneous rupture is of rare occurrence. We have, therefore, classified this entity in accordance with the clinical history as traumatic and as spontaneous; in relation to its pathology, as normal and abnormal.

Twenty-seven splenectomies, because of various pathological conditions, have been performed in the Charleston General Hospital from the year 1941 to April 1946, inclusive. This number included 18 individuals in each of whom a proven diagnosis of ruptured spleen had been made. Of these 18 there were two in whom spontaneous rupture had occurred, one case involving a normal spleen and the other an abnormal one.

The incidence of spontaneous rupture of the spleen is rare, and the diagnosis, in spite of the present advanced knowledge of this particular syndrome, is still difficult. Before going into the details of this subject we believe that a brief review of the embryological, anatomical, and physiological factors will be of some help in the understanding of this unusual pathological condition.

EMBRYOLOGY, ANATOMY, AND PHYSIOLOGY

The spleen originates from the mesoderm and mesenchyme. According to Fischel the spleen anlage consists at first of three tubercles which merge into two and finally into one body, gradually becoming detached from the wall of the bursa omentalis to form the spleen. The spleen originates from the mesogastrium, a mesenteric fold connecting the stomach with the vertebral column. Early in the embryonic stage (even in an embryo 8 cm. in size) differentiation of the different histological structures of the spleen begins. Between the round mesenchyme cells a fine crevice-like network forms, at first without endothelium, in which the arteries and concomitant veins gradually grow, forming a rich plexus and dividing the mesenchyme cells into well organized spherical groups. From these cell groups

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*Oration in Surgery, presented before the 79th annual meeting of the West Virginia State Medical Association at Huntington, May 13, 1946.

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the pulpa is formed later on. The malpighian bodies finally develop with their inner and outer arterial net. During the early stages of embryonic life the spleen acts as a blood forming organ. This organ, which belongs to the group of ductless glands, is about 12 cm. long, 7½ cm. wide and 3 cm. thick, and weighs approximately 225 Gm. (varying between 50 to 350 Gm.) Its size and weight vary, however, and greatly depend on different factors such as age, nutrition and health condition of the individual. The spleen is larger and heavier in young, well nourished persons. It may become enormously enlarged due to various pathological conditions, such as that following intermittent or other fevers, or leukemia, weighing occasionally as much as 20 pounds. The spleen is seemingly well protected, lying underneath the left diaphragm anteriorly, and laterally protected by the tenth and eleventh ribs. The normal spleen, as a rule, is not palpable. The long axis of the spleen follows the direction of the ribs. It is elastically suspended by two peritoneal folds, ligamentum phrenicolienale and gastrolienale, and is supported by the ligamentum phrenicocolicum, resting cushion-like on the convolutions of the intestine.

Realizing these anatomical topographical facts one may easily understand the mechanism of trauma to the spleen. A sudden localized force increasing the intra-abdominal pressure may cause the spleen to rupture by "hydraulic action", especially when the spleen is engorged and friable. The splenic capsule will be overstretched and may burst at the point of least resistance.

The spleen is a vascular, lymphoid organ, soft and friable. The friable and fragile character of the spleen explains the frequency of trauma to it in spite of its apparently protected position. It has an unusually rich blood supply. The splenic artery, the largest branch of the celiac axis, is second only in size to the renal artery in supplying the abdominal organs. This artery branches gradually into a network of small vessels which finally send its blood supply through the interstices of the reticulo-endothelial tissue. We understand now that any damage to such a blood reservoir will be followed by serious consequences.

The celiac plexus provides the spleen with its nerve supply. Any stimulation of these autonomic nerve fibers will cause constriction of the spleen's smooth musculature in the capsule and trabeculae. It will be shown later that some authors believe that this mechanism may have considerable etiological bearing on the spontaneous rupture of the spleen. In spite of the fact that we know some of the functions of the spleen, the physiology of this organ is still not quite clear.

The spleen contracts, as is proved by the studies of different authors (Barcroft, Holman, Horgis, Mann, Curtis, Wiseman and Doan), during exercise, hemorrhage, asphyxia and emotional stress. That rhythmical contractions of the spleen occur has been proved by Barcroft and Nisimaru. Injection of adrenalin into the splenic artery on an experimental basis demonstrated contraction of the spleen with diminution of its size. The three major physiological functions are the destruction of the blood cells, the production of lymphocytes in the malpighian corpuscles, and the storage of blood. The destruction of the red blood cells has been proven by the following findings (Mayo):

a. The presence of red blood cells in different stages of disintegration.

b. The presence of phagocytic cells in the spleen containing broken down red cells.

c. Abundance of organic compounds rich in iron which probably is derived from digested red blood cells.

d. After splenectomy the lymphatic glands become hyperplastic and acquire phagocytic ability against erythrocytes. Pearce states that the spleen has the ability to control and regulate blood destruction.

ETIOLOGY

No definite etiology has been established, as is shown by the many theories advanced as to the causes of spontaneous rupture of the normal and abnormal spleen. Wohl believes that the spleen ages early and shows at 36 years of age an advanced hyalinization and thickening of the malpighian corpusles and capsule. The blood vessel walls become thickened. However, he believes that these changes subside, as otherwise more frequent ruptures of the spleen would occur. Some authors (Ledderhose and Fourcault) believe that spontaneous rupture occurs only in diseased spleens, others that the spleen may show pathological changes only in a small area. If this latter belief should prove to be true, then all reported spontaneous ruptures have occurred in apparently healthy spleens, the spontaneous rupture occurring in the diseased area and destroying all pathological evidence. This theory, however, seems rather illogical and most unlikely.

It is believed that the spleen may produce a hormone stimulating the secretion of pepsin by the stomach. The stomach, with its contractions and mobility during hunger and digestion, or under other conditions, may exert some pull on the spleen causing passive congestion of the splenic vessels. This congestion may result in subcapsular hemorrhage and subsequent capsular rupture with clinical symptoms of ruptured spleen. (The syndrome of spontaneous rupture of the normal spleen is important from the medical and legal point of view.) This assumption seems to explain the gastric symptoms occasionally found in patients who have a spontaneously ruptured spleen (all case reports by Skeritt, Atkinson and Wohl).

Other authors deny the possibility of spontaneous rupture of a normal spleen and believe that the so-called spontaneous rupture is nothing else than a traumatic rupture of the delayed type. A small rupture may occur unrecognized and months later a second hemorrhage may follow and stimulate a spontaneous rupture.

As stated previously, the spleen is able to contract spontaneously. This can be observed during systole and diastole. It also increases in size after eating and decreases when adrenalin is put out into the blood stream. The size of the spleen varies accordingly, depending on the elimination of blood cells and toxic products. Susman sums up the views of the causes of spontaneous rupture of the spleen. In the beginning, all the structures of the spleen are softened. Congestion of the portal vein and its radicals occurs. The relatively narrow splenic vein is unable to accommodate the suddenly increased blood supply. The blood is being forced between the spleen and its investing peritoneum. A subcapsular hematoma occurs between the spleen and its investing peritoneum and the capsule finally gives away. Perisplenic adhesions fixing the organ may predispose to rupture.

The same etiological factors play a part in the abnormal spleen. However, it is easier to understand spontaneous rupture of an abnormal spleen than it is of a normal organ. Spontaneous rupture would exclude any trauma even though it be minimal, such as coughing, laughing, sneezing, gargling, bending or similar occurrences. We believe it would be probably more justifiable to term this type of rupture nontraumatic rather than spontaneous. The etiology of the abnormal spleen according to frequency is listed as follows in Berger's statistics: malaria, pregnancy (the spleen was probably already diseased), typhoid, leukemia, syphilis, alcoholic sclerosis, tuberculosis, hemophilia capsula, varices, typhus, anemia, eclampsia, relapsing fever, infarct, abscess and aneurysm. Apoplexy and purpura are included (Besnier). Size and age instances apparently do not play any part as etiological factors. Site of rupture does not show any particular predilection.

PATHOLOGY

Human health and disease being taken into consideration, the spleen recently has become of much greater interest pathologically than physiologically. During the past few years this fact has occasioned a distinct reversal of the situation. That the spleen is nonessential at any age to the maintenance of life and health is amply attested by experimental extirpation of that organ in many animal species, and by accumulated experience of emergency splenectomy for traumatic rupture of the normal human spleen. Increased awareness of the importance of splenic pathology must be emphasized.

Pathologico-anatomical ruptures of the spleen are in two classifications: (1) rupture involving capsule and parenchyma, and (2) rupture involving parenchyma only. Some observers call the second type "contusion of the spleen", others call it "subcapsular hematoma". Rupture involving the capsule is the more common type. The lesions vary in size, shape, depth and extension. They may be single or multiple; they may be situated at the hilus and concavity or at the convexity of the spleen. Some observers believe that injury is more common at the convexity of the spleen in spontaneous rupture and at the concavity in traumatic rupture.

Friesleben states that in most cases of traumatic rupture of the spleen the injury occurs only on the convexity. This statement, we believe, is rather dogmatic, as we find other reports (Skerritt, Deadrick) of spontaneous rupture on the concave side. Downs and Debruit believe that a tear may occur anywhere on the surface of the spleen.

SYMPTOMATOLOGY AND DIAGNOSIS

The clinical findings generally are the same in traumatic and spontaneous rupture of the spleen, with slight variations. We differentiate between the general symptoms and local signs. The general symptoms are more or less those of internal hemorrhage in acute, subacute or chronic form, depending on the type of rupture. We find, therefore, a rapid pulse of different quality, occasional nausea, dizziness, faintness, vomiting associated with shock and its symptomatology. However, the

general symptoms may vary in degree and occasionally may be almost negligible. Severe pain probably is the earliest symptom.

The local signs are well described and defined in almost every textbook of surgery. However, if we analyze the reviewed cases we will find that only a few symptoms are really constant. Abdominal rigidity is variable and, if present, is more pronounced on the left side of the upper part of the abdomen and is found more commonly after traumatic rupture of the spleen than after spontaneous rupture. Rigidity following traumatic rupture of the spleen is more than likely caused by the associated contusion of the abdominal wall. In spontaneous rupture of the spleen the abdomen is soft and of a characteristic doughy consistency. Local tenderness usually is found, associated with generalized tenderness and rebound tenderness. Kulenkampff tries to explain this significant disproportion between marked tenderness and the almost total absence of rigidity. His belief is that the intra-abdominal hematoma will irritate the peritoneum but cannot penetrate it, and is therefore unable to attach the nerve endings of the abdominal musculature, as generally happens following an inflammatory process. Abdominal distention appears usually a few hours after the accident and probably is due to an associated ileus. Kehr's sign, which is referred pain in the left shoulder associated with some hyperesthesia, probably is due to irritation of the left diaphragm. This sign is rather inconstant. The Ballance sign, dullness on percussion in the left upper quadrant and left flank, occasionally even in the right flank, will disappear in the right flank on shifting of position. Also, this sign is not as frequently encountered as some surgical textbooks may lead one to believe.

The diagnosis occasionally is very difficult, especially in cases with masked symptoms. On reviewing the literature we note that the correct diagnosis is rarely made (Dahle). As stressed by Webb, a flat plate of the abdomen occasionally may be helpful by showing some elevation of the left diaphragm. Paracentesis, as advocated by Wright and Pigot, is of value; however, it is doubtful whether its routine use should be advocated. Intravenous thorotrast injection is suggested by Burke and Madigan as a very helpful method in diagnosing some of the obscure cases.

The clinical laboratory findings, proving the changes of the blood, are of great assistance in the diagnosis. Changes in the blood may be more or less pronounced, occasionally even within normal limits. The red blood cells may be slightly increased at first; however, they decrease rapidly as is shown on repeated blood counts. The hemoglobin may be diminished and the red count may show signs of secondary anemia. The leukocyte count usually is increased in about 80 per cent of cases (Curtis), sometimes ranging between 40,000 and 60,000. In some cases a moderate lymphocytosis and eosinophilia are present and rise in the blood platelet count can be observed. The hematocrit reading, however, is the most reliable laboratory test and is most helpful in making an early diagnosis.

The differential diagnosis is that from an acute condition within the abdomen needing immediate surgical intervention. Perforated peptic ulcer, acute appendicitis, ruptured ectopic pregnancy, and traumatic injury to the liver or kidney have to be excluded. The early diagnosis is essential in order to institute immediate life saving surgery.

AN ANALYTICAL REVIEW OF CASES REPORTED IN THE LITERATURE

(A) *Abnormal Spleen.*—The mechanism of spontaneous rupture of the abnormal spleen is easier to understand than that which occurs in the normal organ. Enlargement, unusual mobility and motility of the spleen increase its vulnerability. The large spleen, less protected, usually is engorged and friable, and subject to the slightest injury with very serious consequences. Overstretching of the capsule following excessive enlargement of the spleen, and torsion of the pedicle following unusual mobility of the spleen are some of the probable predisposing factors of spontaneous rupture of the pathologically changed spleen. A very slight exciting cause, such as suddenly sitting up in bed, coughing or sneezing, may lead to very acute complications.

Leighton, in 1929, reported 73 cases of spontaneous rupture of the abnormal spleen. Noland and Watson reported only three cases of spontaneous rupture of the spleen in 30,000 patients with malaria at the Colon Hospital in Panama, within eight years. More frequent is the occurrence following malarial therapy in metaluetic patients. The reason probably is that the spleen in luetic patients is fibrotic, degenerated, and firm, and possesses very little elasticity. Polayes and Lederer reported 10 such cases in 1930 and Currado 20 cases in 1933. In regions where endemic malaria is present the incidence of traumatic rupture of the spleen is more common.

Kellner, Hochstein and Tillman reported a spontaneous rupture of the spleen that occurred during a malarial paroxysm. The patient died within thirty minutes following the rupture. Berger found that

out of 123 cases of traumatically ruptured spleen there were 93 cases with a history of malaria.

Typhoid fever, next to malaria, is the most common cause for spontaneous rupture of the spleen. Conner, Downs, Necheles and Duy report such cases. The rupture usually occurs at the beginning of the third week of the disease. Conner and Downs report 12 fatal cases of ruptured abnormal spleen, 9 of which were diagnosed at autopsy. Bryan reports 25 cases, some with rather doubtful etiology.

In the course of other acute and chronic infections such as the following, spontaneous rupture of the spleen may be observed: after angina (Friesleben), appendicitis and peritonitis (Fieber), influenza and marked toxemia following sepsis initiated by a carbuncle (Diehl) or infected finger (Miller), following pneumonia (Kevarovic) and recurrent fever (Tellegin). Hammersfahr and Friesleben report spontaneous rupture of the spleen in a case of leukemia. One instance is reported following thrombocytopenic purpura (Ernstwilde). Spontaneous rupture is rare in tuberculosis of the spleen (Cannaday, Pringle). Rarer even than those mentioned is spontaneous rupture following typhus fever, relapsing fever, cystic degeneration, malignancy, infarct, torsion, abscess and varices. It occurs in cholera, syphilis, thrombosis of the portal vein (Demel) and thrombosis of the splenic vein (Pringle, Rhame, Smith, Morrison and Sladden). It may be observed following splenic infarction (Remynse) and splenic tumors. One case is reported following strangulation of the splenic vein by adhesions from a duodenal ulcer.

Dardinski reports a case of a 40 year old negro with a history of sudden, sharp, severe pain in the left side, gradually subsiding, the patient going into shock from which he did not recover. The autopsy revealed primary carcinoma of the liver with spontaneous rupture of the capsule of an apparently normal spleen. Spontaneous rupture following carcinoma of the pancreas is reported by Grey.

Again, the spleen may rupture in physiological conditions causing softening and enlargement of the spleen and increased abdominal pressure, such as pregnancy, postpartum and puerperium.

Ziegler reports 3 cases of spontaneous rupture of the spleen following infectious mononucleosis, with two of the patients surviving following surgical intervention. Echinococcal cyst, influenza, subacute bacterial endocarditis, and hemophilia are found as etiological factors. Attlee (1932) reports a case of spontaneous rupture of the spleen in a 23 year old woman who had what he thought was Vincent's angina. However, the clinical and laboratory reports indicate that this was a case of unrecognized infectious mononucleosis. King warns us not to overlook the incidence of spontaneous rupture of the spleen following infectious mononucleosis and reports a case of his own.

(B) *Normal Spleen.*—Reviewing the cases reported by different authors as spontaneous rupture of the normal spleen, it is questionable whether the spleens in these cases were normal or the rupture spontaneous. Rather frequently the history could be interpreted as that of a delayed rupture in which the initial injury was overlooked. However, a thorough history usually will reveal the etiology. The delayed rupture usually is not quite as rare as was previously believed. We find in some of the cases a history of a sudden muscular contraction of the abdominal wall, as in bending forward to lift a heavy object, or in coughing or sneezing. Any sudden muscular contraction of the abdominal wall could be assumed an indirect injury to the spleen by the resultant sudden increase of the intra-abdominal pressure.

It is questioned by quite a few authors (Foucault, Patey, Schlegel, Schachnowitz and others) whether there is such an entity as rupture of a normal spleen. Lubarsch states that a spontaneous rupture may occur only in an abnormal spleen as a logical sequence of its pathology.

Friesleben found in his review of the literature only four definite and two doubtful cases of spontaneous rupture of the normal spleen. He reports the case of a 53 year old grocer who bent over to lift a bucket and experienced sharp intra-abdominal pain. A ruptured spleen was found on surgical exploration. The patient died three days after operation and autopsy did not reveal any pathological changes of the spleen. Atkinson (1874) probably was the first surgeon to report the spontaneous rupture of a normal spleen. However, it is doubtful whether the spleen was normal in this case, as from the pathological description it might have been changed by leukemia or an infectious process. Skerrit's report in 1878 is also of rather doubtful etiology.

Young reports two cases of spontaneous rupture of a normal spleen and adds his own case, that of a 47 year old presser, in which the spleen was proved to be normal by several noted pathologists. Conner, Metcalfe, Underwood, Abasidze and Kaspar are

among the authors reporting cases of spontaneous rupture of a normal spleen.

Byford collected and summarized six cases and added one of his own. Bailey reports one case of his own and includes two others not mentioned by Byford (one from Holland and one from Italy). Harvey reports one case mentioned neither by Byford nor Bailey. Nixon brings us a case of spontaneous rupture of a normal spleen. The spleen in this case, however, appeared to be somewhat enlarged. Fletcher reports two cases of spontaneous rupture of a normal spleen in soldiers, one experiencing symptoms after the morning military drill and the other after drinking a large quantity of cold water. Shorten reports spontaneous rupture of an apparently normal spleen in a British soldier, occurring while he was walking about. Rhame reports a spontaneous rupture of the spleen with venous thrombosis and believes that engorgement of the spleen with blood probably is an important etiological factor. Susman proves that very often alimentary disorders, gallstones, or pulmonary tuberculosis are found in reported cases of spontaneous rupture of the normal spleen. Boehler (1933) reports a case of spontaneous rupture of the normal spleen in a healthy individual as he bent down to lift a heavy object. He reports also a case of a patient who tried to lift a heavy weight by pulling a cable over a pulley. The pathological report revealed only chronic congestion of the spleen.

As we see, most of these cases give some suggestion of direct or indirect injury to the spleen.

A summarizing review of the literature by Susman in 1927 reveals 7 cases, of which he excluded the two doubtful cases by Atkinson and Skerritt. A later review by Dardinski in 1932 reveals 15 cases, and a review by Lundell in 1934 shows a series of 20 cases of spontaneous rupture of a normal spleen.

THERAPY

A brief historical review of the surgery of the spleen reveals, according to Bier, that the first splenectomy was done by Zaccarrelli in 1549 for rupture of a malarial spleen in a 24 year old woman. The first successful splenectomy for traumatic rupture of the spleen was carried out in 1892 by Riegues of Breslau. We notice that with the advancement of surgical technique the mortality rate following splenectomy drops. The series of 37 cases reported by Bessel and Hagen showed a mortality rate of 46 per cent, which decreased, according to Lotsche in 1908, to 37 per cent and finally as reported by Buxton in 1922 to 28.8 per cent.

Surgery at the earliest possible moment is the treatment of choice. Conservative management has no place in the treatment of the ruptured spleen. Statistics by Wright and Pigot show 90 to 100 per cent mortality in cases not undergoing surgery.

Early diagnosis is essential to life saving surgery. About 51 per cent of cases of rupture of the spleen terminate fatally within one hour following the accident (Curtis). The importance of watching carefully any patient who shows any of the symptoms or signs mentioned previously cannot be overemphasized. If shock should be present the patient should be treated for it. We believe, however, that it is a serious mistake to wait very long before surgical intervention, hoping meanwhile that the patient will recover from shock. If the injury to the spleen is very extensive, all the blood or plasma being transfused will escape about as rapidly from the lacerated spleen as it is injected into the vein. We make it our rule to transfuse these patients as soon as possible and to prepare them at the same time for surgery. Regardless of whether or not the patient shows much improvement, he is taken to the operating room where multiple blood transfusions through the veins of the arms and legs are started and transfusion of blood is continued during the performance of the splenectomy. The free blood encountered in the abdomen may be used for autotransfusion. The left upper rectus and transverse incisions offer, according to our experience, equally good exposure. Attempts at tamponade or suturing of the laceration are procedures of the past. Splenectomy is the only treatment worthwhile.

POSTOPERATIVE COURSE

The postoperative course is, as a rule, rather stormy. Wangensteen suction is kept up postoperatively to prevent dilatation of the stomach which occurs not infrequently after splenectomy. This probably is due to the close anatomical relation between stomach and spleen. Frequent small blood transfusions, likewise saline and glucose infusions are given for the first few postoperative days.

Peritoneal effusion, wound disruption, left pleural effusion, persistent hiccups and splenic asthenia are reported by some as early postoperative complications. As late complications we may find palpitation when the patient is lying on the left side and rheumatic-like bone pain, possibly due to changes in the bone marrow. Vomiting, perhaps due to congestion of the gastric blood vessels, at times may be observed.

Photograph shows the two spleens split so that one half of each presents the cut surface and the other half the convexity of the spleen. (a) Spontaneous rupture of the leukemic spleen with subcapsular hematoma. (b) Atraumatic rupture of the normal spleen. (c) Some of the blood clots.

CASE REPORTS

Case 1.—A74890, T. T. W., a 40 year old colored man, married, was admitted to the emergency room of the Charleston General Hospital at about 2:30 p. m., August 4, 1945, in profound shock, with blood pressure of 80 systolic and 60 diastolic, pulse 98 and temperature 95.6 F. The patient was a bellhop in a Charleston hotel. While at work he had lifted a tray of ice above his head and in doing so experienced a sudden, sharp, pain in the epigastrium. The pain radiated to the left and then to the back. The patient stated that the pain was so severe that he almost fainted and that he would have dropped the tray if it had not been for assistance from his "buddy". The pain continued and became worse. He stated that two days previously he had had some pain in the region of an old incision in the right epigastrium. During the morning before, he had had an attack of pain associated with four loose bowel movements which he stated were black in color. He vomited twice before admission.

The patient stated that he had had several episodes of diarrhea and constipation, that frequently his stools had been black in color.

The past history was negative except for an exploratory laparotomy in 1941 following a stab wound in the right hypochondrium. A small laceration of one of the circular veins and a laceration about 1½ inches in length on the left upper side of the right lobe of the liver were found. The lacerations were repaired and thorough exploration at that time had revealed no other injuries.

The family history was noncontributory.

When seen, the patient was slightly dyspneic and pale but lying quietly in bed. The skin was rather dry and cold. The abdomen was somewhat soft, with extreme tenderness over its entire area, more pronounced on the left. There was no definite rebound tenderness.

CLINICAL LABORATORY FINDING

Urinalysis—

8-6-45	8-7-45	8-17-45
Voided spec.	Voided spec.	Voided spec.
Amber	Amber	Amber
1.022	1.015	1.013
Neg. alb.	Acid	Acid
Trace—sugar	Neg. alb.	Neg. alb.
Neg. acetone	Neg. sugar	Neg. sugar
1 plus pus	4 - 6 pus	8 - 10 pus
Occ. sq. epith.	Occ. sq. epith.	Occ. sq. epith.
	Some mucus	1 plus mucus

Blood Counts—

	8-4-45	8-4-45	8-5-45	8-6-45	8-8-45	8-12-45	8-17-45
Hemoglobin	72	65	60	51	58	57	75
Erythrocytes	4. 5	3. 6	3. 2	3. 1	2. 9	2. 7	3. 9
Leukocytes	18.300	12.700	8.600	6.900	12.700	14.000	19,000
Color index	0.80	0.88	0.9	0 83	1.0	1.01	0.9
Lymphocytes	11	11	21	38	17	18	20
Monocytes		1	4				
Neut. stab.				3	8	10	5
Neut. seg.	89	88	75	59	75	70	75
Normoblasts						9	
Eosinophils						2	

Hematocrit—	8-4-45	8-6-45	8-6-45	8-8-45	8-11-45
	38	26	28	30	30

Blood Serology 8-6-45—

Kline Exc. Negative
Mazzini Negative

X-RAYS

8-5-45: Abdomen, upright and two flat plates: "There is a moderate dliatation of the large and the small bowel with air. This is due to an ileus."

8-6-45: Abdomen: "There is less air in the large bowel, as well as the distal loops of the small bowel."

8-8-45: Portable x-ray of chest: "There is congestion in each hilus, with edema of the left lung."

The patient was in severe shock and was treated with blood plasma and intravenous fluids. He refused Wagensteen suction. After twenty-four hours his general condition improved gradually. However, the hematocrit reading and blood count indicated that apparently some bleeding was still going on.

After routine preparation the patient was operated upon August 6, 1945, exploration being done through a left upper rectus incision. There were old adhesions between the omentum and parietal peritoneum. A large amount of liquid dark brown blood was encountered in the abdominal cavity, and a few recent blood clots were found in the region of the spleen. A small tear about 3 cm. long was present in the hilus of the spleen and active bleeding from this area started soon after exploration. The spleen apparently was of normal size and consistency.

Splenectomy was carried out in the routine way. During the operation blood transfusions (500 cc.), vitamin K, and adrenalin cortex had to be given supportively. The patient made an uneventful recovery and was discharged on August 17, 1945.

REPORT OF PATHOLOGIST

"Spleen 8.5 by 6 by 2 cm. weighing 83 grams. The hilar surface is partly covered by clots. There is a transverse tear present near the hilum measuring 3 cm. Near that area a subcapsular hematoma is present involving a quarter-sized area. On section beneath the tear multiple ruptures of the pulpa are seen containing clotted blood. Splenic tissue is pale, brownish-red, not softened, follicles not visible.

"Follicles and pulpa are of normal appearance. The arterioles are partly thickened and hyalinized. In the area of the rupture evidence of a recent hemorrhage is present.

"Diagnosis: Rupture of splenic parenchyma with small tear at hilum; moderate arteriolarsclerosis of the spleen.

W. Putschar, M. D."

Case 2.—A75585, R. T., a white male, married, age 21, was admitted to the Charleston General Hospital, August 24, 1945, complaining of sore throat. He had been sent in from the Kanawha County Jail. He stated that he had had nose and throat irritation for two or three weeks and that the cold had become worse during the last week. He stated on the day of admission to the hospital that he had chills and fever. He had no complaint of either pain or tenderness.

The past history and the family history were noncontributory.

Physical examination on admission showed the temperature to be 103 F., pulse 96, blood pressure 115 systolic and 70 diastolic, and respiration 18. The throat had apparently been painted with some colored antiseptic; therefore, the degree of inflammation could not be definitely established. The tonsils were markedly enlarged, with yellow exudate on the left. Almost half of the throat was occluded by the tonsils and there was edema of the pharynx. The lymph glands of the neck were bilaterally enlarged and tender. There was some tenderness in the left side of the upper abdomen but no spasm or rigidity. The spleen could be palpated. No other pathological findings were present.

CLINICAL LABORATORY FINDING

Urinalysis—8-2745		Blood Count—	8-24-45	8-27-45
Voided	sp.	Hemoglobin	91	80
1.020		Erythrocytes	5, 3	4, 2
Neg.	alb.	Leukocytes	15,600	22,900
Neg.	sugar	Color index	0.85	0.97
Occ.	pus	Lymphocytes	74	74
Occ.	sq. epith.	Neut. seg.	24	20
		Metamyelocyte	1	
		Promyelocyte	1	
		Mono.		3
		Neut. stab.		2

Hematocrit	8-27-45	8-27-45	Blood Chemistry	8-27-45
	40	30 (2:00 p. m.)	Sulfadiazine	9.5

Blood Serology 8-25-45
Kline — Negative
Mazzini — Negative
Kolmer Wass. — Negative

The patient was admitted to the Department of Otolaryngology and a diagnosis of acute follicular tonsillitis and cervical adenitis made. He was treated with sulfadiazine and soda bicarbonate by mouth, sulfathiazole gum, aspirin and hot saline gargles.

Suddenly, on August 27, 1945, about 9:00 a. m., while the patient was gargling, he experienced a sharp pain in the epigastrium. He stated that he fainted following this attack of pain. He also had pain in the left and right hypochondrium and pain in both shoulders.

On examination the skin was cold and clammy. The pulse was rapid, regular, but of very poor quality. The abdomen was soft but there was marked tenderness and rebound tenderness in the epigastrium and in both flanks. According to statements made by the nurse and the intern the patient's general condition had apparently improved somewhat since the attack of pain.

The most likely diagnosis was spontaneous rupture of the spleen. Possible perforation of a peptic ulcer, or a septic arterial thrombus had to be excluded. The patient's general condition was very poor at the time of examination and it was thought advisable to observe him closely and treat him for shock.

He was transferred to the surgical service, the sulfadiazine discontinued, and penicillin, 30,000 units every three hours, started. He was given 250 cc. of blood plasma immediately, followed by 500 cc. of blood. Hykinone, 2 ampules intravenously, was given and Wangensteen suction instituted. The patient was prepared for surgery. Blood pressure and pulse were to be recorded every half hour and close observation of the patient was advised. Hematocrit was ordered.

At 2:30 p. m. of the same day the patient apparently experienced continued internal hemorrhage. He became cyanotic, had extreme pain in the left

upper quadrant of the abdomen, and had the appearance of being in deep shock. Five cc. of adrenal cortex was given immediately, morphine sulphate, grains 1/6, was given and an ice cap was applied to the epigastrium. An additional 500 cc. of blood was started. At this time the blood pressure was not obtainable.

Towards evening the patient's general condition improved so that an exploratory laparotomy could be undertaken. His blood pressure was about 90 systolic and 60 diastolic; his pulse about 110 and of fair quality.

Under cyclopropane anesthesia the abdomen was explored through a left upper rectus incision. A large amount of brownish liquid blood and large blood clots were encountered. The spleen was enlarged to about four or five times its normal size and was friable and soft. The internal bleeding apparently came from this source. Removal of the spleen was rather difficult but was carried out in the routine manner.

During the operation the patient received 500 cc. of blood, 500 cc. of blood plasma, vitamin K 1 cc., and 50,000 units of penicillin intravenously. He stood the operation fairly well. Toward the end of the operation his pulse became stronger and the blood pressure was obtainable and recorded as 120 systolic and 80 diastolic. He was returned to the ward in fair condition and placed in an oxygen tent.

REPORT OF PATHOLOGIST

"Extirpated spleen 20 by 9 to 11 by 3 cm. and weighing 570 grams. There has been extensive hemorrhage beneath the capsule. There are multiple, mostly horizontal ruptures, especially on the upper pole and near the posterior margin. In large areas the capsule is missing, especially near the lower pole. On section the tissue is dark greyish red, moderately soft, with somewhat indistinct follicles. In addition to the above, dark red clots altogether forming a mass 14 by 7 by 2 cm. were present.

"Lymph follicles are very large and indistinct. There are no germinal centers present. Pulpa is partly hyperemic, partly anemic. There is a moderate amount of lymphatic infiltration. Besides this many eosinophils are present, as well as plasma cells. It is believed that this is an early lymphatic leukemia.

Diagnosis: Spleen with multiple ruptures and early lymphatic lukemia.

W. Putschar, M. D."

The patient had an uneventful postoperative course and was discharged in good general condition September 7, 1945.

SUMMARY AND CONCLUSIONS

1. A brief review of the embryology, anatomy and physiology of the spleen is given.
2. The symptomatology and the diagnosis are discussed. The difficulty of early correct diagnosis is pointed out, explaining the relatively high mortality rate encountered in the review of the literature.
3. In quite a few of the cases reported as spontaneous rupture of the speen, minimal injuries may have been inflicted on the spleen following coughing, sneezing, bending, or lifting. Change of the nomenclature is therefore suggested. "Atraumatic" or "nontraumatic" rupture of the spleen probably would be the more logical name.
4. An analytical review of the literature on spontaneous rupture of the normal and abnormal spleen is given.
5. Two of our own cases of spontaneous rupture are reported, one of an abnormal spleen, the other of a normal one.
6. Immediate surgical intervention is the only rational treatment.

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STRABISMUS

Few diseases lead to blindness in the early years of life, meningitis and other blood borne infections only rarely giving rise to involvement of the eyes. The greatest loss of vision, while not leading to blindness, but to great reduction of sight in one eye, is strabismus. It is frequently difficult to make parents understand that the chief problem in the treatment of this condition is the conservation and development of vision, the cosmetic defect being a poor second in importance. Only by forcing the use of the deviating eye can sight be developed. This may occasionally be accomplished by blurring the straight (fixing) eye with atropine, slightly more often by the use of occluders of one type or other, but infinitely more satisfactory by covering the fixing eye with a complete adhesive type dressing. The latter treatment results in the development of good sight in a very short time in young children, but requiring correspondingly longer time with increasing years.—Eugene M. Blake, M. D., in Conn. St. Med. J.

HERNIA*

By JOHN E. CANNADAY, M. D.
Charleston, West Virginia

There are infinite varieties and classifications in connection with the complex subject of hernia. However, I assume that a brief review of the more frequently seen types would be of more general interest.

CAUSES OF INGUINAL HERNIA

Indirect Hernia.—This condition is thought to be due primarily and solely to the persistence in whole or in part, of the embryonic structure known as the *processus vaginalis testis*, as no other developmental defect regularly accompanies this type of inguinal hernia. Incidentally, no one, so far as I can learn, has offered any proof that any amount of force or trauma can produce a protrusion of this type. The chief evidence on which this statement is based lies in the constant position and attachment of the hernial sac with reference to the cord structures. This sac lies in the middle of the cord, immediately anterior to, and in direct apposition with, the *vas deferens*, and is covered by the cremasteric and internal spermatic fascial layers. An areolar type of connective tissue binds the sac to the other components of the cord. Unless modified by pressure or inflammation these anatomical findings do not change. They are too constant to be the result of an accidental rupture through the abdominal wall and can be explained only on the basis of the persistence of a normal embryological structure.

Although the individual has a congenital peritoneum lined process communicating with the peritoneal cavity and extending into the inguinal canal, it is possible for the sac to remain empty throughout life, the internal sphincter preventing the entrance of bowel or omentum. However, in such a case hernia may develop more or less suddenly following strain or injury. In other words, the stage has been set from birth so that when exactly the right conditions coincide the hernia may develop rather suddenly, associated with pain, or very gradually and painlessly, in which event the inner ring enlarges slowly and gradually, after which the continued pressure of intestine or omentum, or both, plus obesity in many cases, slowly but surely enlarges not only the hernial sac but often the size of the internal ring so that the contents piston back and forth without interference.

*Presented before the 79th annual meeting of the West Virginia State Medical Association at Huntington, May 15, 1946.

Furthermore, in cases of old, large hernias, also in cases in which the patient wears a truss for any great length of time, atrophy may ensue from prolonged stretching as well as from pressure so that eventually the conditions present may be somewhat similar to those found in a direct hernia.

Direct Hernia.—This type begins in a manner very different from the indirect variety. It also is based on a congenital anomaly of development that is, however, quite different from that which has to do with the causation of indirect hernia, the predisposing cause often being weakness or absence of the lower fibers of the internal oblique muscle. If, in addition to the muscular defect such as the one just mentioned, the transversus structures prove to be inadequate, direct hernia will result, usually in the shape of a broad, bulging defect. After operative repair this type of hernia occasionally recurs.

TREATMENT

A word of warning about the treatment of strangulated hernia. Do not use force. Elevate the hips, place the legs in a position of relaxation, or even bring about complete relaxation by general or spinal anesthesia, lower the rest of the body, after which spontaneous reduction may take place. But *do not use force* under any circumstances. In case spontaneous reduction does not occur, prepare for an emergency operation, and if the bowel has been firmly incarcerated in the sac for any great length of time, be prepared to do a bowel resection if indicated. Unfortunately, I have had the opportunity of seeing the disastrous results following the use of apparently very moderate force in attempts at reduction, the sac containing blood, the intestine also showing marked evidence of trauma.

The logical treatment of indirect inguinal hernia obviously would be the removal of the sac plus the narrowing of the ring to its normal size. When dealing with the sac, after freeing it from its attachments to the cord, it is opened for reduction of contents, and inspection. In the interest of safety and especially in case the base is at all wide, we usually close the sac with sutures applied from the inside.

On the other hand, when dealing with direct hernia, we have a protrusion through an overstretched fascial wall. Here is indicated the repair of the opening in the fascial floor, also its reenforcement, made with a view to the prevention of a recurrent herniation. It is believed by many that there is no advantage to be gained by opening the sac in cases of direct hernia, the return of the unopened sac to the abdominal cavity followed by the closure and reenforcement of the opening being the better procedure. Exception should, of course, be made in case the sac is long and finger-like.

In dealing with direct hernias the aponeurotic edges surrounding the opening should be carefully brought together by interrupted sutures of a permanent type, after which the area should be amply reenforced and buttressed with whatever "white tissue" aponeurosis there may be available in the vicinity.

In dealing with femoral hernia after the excision and closure of the sac, the portion of the inguinal ligament underneath, likewise the whole area, can be reenforced by the use of the external oblique as well as by use of the transversalis aponeuroses. The suturing of the ischiopubic tract to the undersurface of the overlying inguinal (Poupart's) ligament often makes the best and strongest closure.

Rather rarely an inguinal hernia will be seen in which the immediate surrounding structures are so poor that the surgeon may feel that a reenforcing patch of cutis may be in order. This material will be found to be superior to fascia lata in many ways. Likewise, in case living suture material is desired, cutis strips are very satisfactory.

Incisional Hernia.—The majority of cases of incisional hernia can be satisfactorily repaired after free mobilization of the sac and the immediately adjacent aponeurotic structures by the usual method of overlapping and closure with multiple interrupted sutures of cotton, stainless steel wire, or silk. It may be advisable in some of these cases to apply a cutis graft as a reenforcement patch. Whether or not, in making the repair of the abdominal wall, limited lipectomy should be done, also as to the direction of the incision, whether the closure should be vertical or transverse, are matters for the judgment of the operating surgeon.

Suture Methods.—Most of the deep sutures are interrupted, usually about No. 15 cotton thread being used for the peritoneum and posterior fascia, No. 70 or 80 for the subcutaneous fat; or No. 30 to 32, or 34 to 38 alloy stainless steel wire.

Babcock's Operation for the Repair of Inguinal Hernia.—From among the various standard technics I have selected Babcock's as a typical example since it includes the better features of many of them.

A transverse incision is made in the line of the normal skin lines, centering over the abdominal inguinal ring. The aponeurosis of the external oblique is split over the inguinal canal between the fibers from the subcutaneous ring to a point well beyond the abdominal ring. The inner layer of the sheath of the rectus muscle is exposed. The internal oblique and transversalis muscles are retracted and the sac is located. In case it is not readily found the peritoneum is incised just above the abdominal ring, after which the sac can be located by the finger, introduced through the abdominal incision. After emptying and separating the sac from the cord it is excised, or if scrotal and very large, or if of the congenital type, it may be divided at the neck and retained. Hesselbach's triangle is reenforced by uniting the edge of the rectus with the deep layer of its sheath and conjoined tendon in front of the cord to the pubic (Cooper's) ligament along the edge of the pubis and pubic ramus. The edge of the deep layer of the rectus sheath lateral to this is approximated to the shelving portion of the inguinal (Poupart's) ligament after which the aponeurotic edges of the internal oblique and transversalis are sutured to the same area. The neck of the sac is transplanted to a higher level behind the rectus muscle by carrying the ligature ends through the nearby shelving edge of the inguinal ligament; after this the lower portion of the inguinal ligament is drawn over the previously made suture lines. Finally, the aponeurosis of the external oblique is brought down over the above described suture lines and united below the inguinal ligament to the fascia lata at the point of the inner angle. Stainless alloy steel wire sutures, size No. 30 to 38, interrupted and tied square knot style, the ends cut close, are used.

In this operation the closed neck of the sac (but not the cord) is transplanted. The conjoined tendon is reenforced by uniting the inner sheath of the rectus to the very strong pubic (Cooper's) ligament and by two additional fascial layers. Infections following this method have been less than 1 per cent and recurrences less than 2 per cent.

The Babcock operation utilizes the transplantation of the neck of the sac as advocated by Kocher and Halsted, also the layer imbrication of the latter surgeon. Bloodgood's transplantation is made more secure by suturing the sheath of the rectus muscle not only to the lower shelving portion of the inguinal ligament but to the pubic (Cooper's) ligament as well, thereby carrying out some of the technic advocated by McVay and many others.

LATER METHODS

Lich and Samson recently have published what is apparently a new and simplified technic for repair of inguinal hernia.

After exposing the spermatic cord, dealing with the sac, and suturing a small portion of the lower edge of the external oblique muscle underneath the inguinal end of the spermatic cord, the surgeon takes a suture bite near the lower edge of the external oblique aponeurosis, also a small plicating bite in the transversalis, after which a deep bite is taken in the lower edge of the pubic (Cooper's) ligament. These sutures are spaced at .5 cm. intervals along Cooper's ligament from the pubic tubercle to the iliopectineal eminence, taking care, of course, not to constrict the femoral vein. The remaining portions of the flap of the external oblique and the transversalis are sutured in like manner to the shelving portion of the inguinal ligament.

In one of the more recent studies of the anatomical relations, also the technic of inguinal hernia

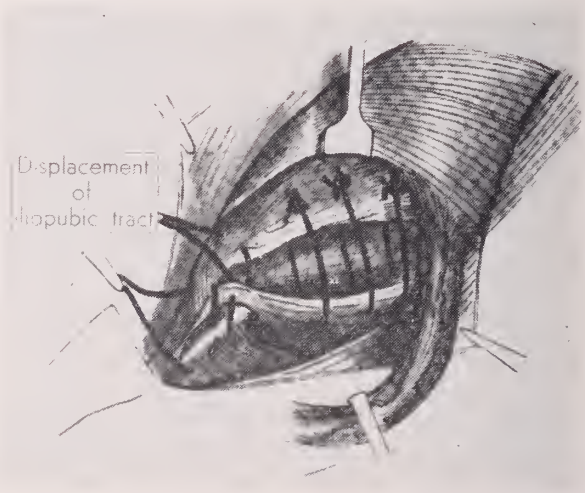

Fig. 1

repair, Clark and Hashimoto observed that the majority of hernias (75 per cent) had recurred as direct hernias superior to the pubic tubercle and posterior to the external abdominal inguinal ring, while the remainder had recurred as indirect hernias probably from incomplete obliteration of the sac. They call attention to three very important fibrous structures that reenforce the transversalis fascia (Figs. 1, 2, 3, 4): the iliopubic tract, Henle's ligament, and the aponeurosis of the transversus abdominis.

Note: Figs. 1, 2, 3, 4 from Clark, John H., and Hashimoto, Edward I.: Surg., Gynec., and Obst., 82:481-482.

The Iliopubic Tract.—This is a band of fibrous tissue paralleling the inguinal ligament; this tract is a tough, fibrous structure posterior to and separate from the inguinal ligament. It is of considerable

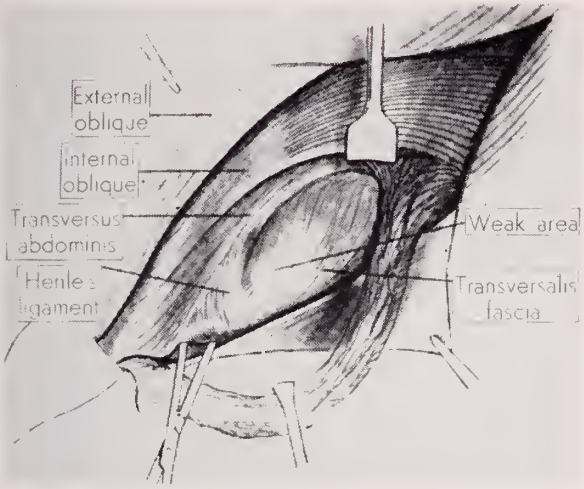

Fig. 2

strength, passes below the internal abdominal inguinal ring and may be traced from the psoas fascia in the area of the anterior inferior iliac spine to the pubic tubercle. It blends also with Henle's

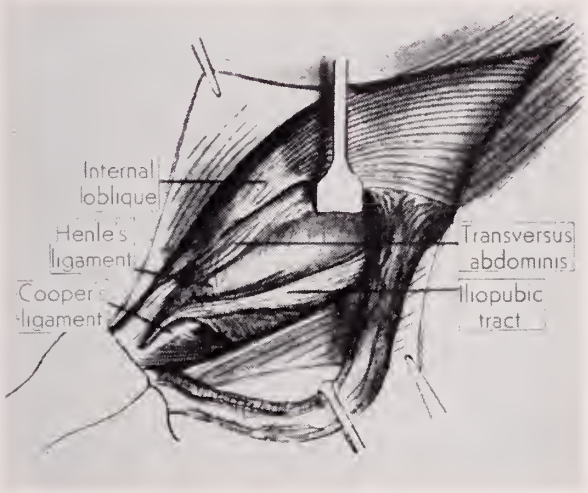

Fig. 3

ligament, the aponeurosis of the transversus abdominis, and less prominent portions of the transversalis fascia; the fibers of this tract insert into the pubic tubercle and Cooper's ligament.

Henle's Ligament.—This is a definite fibrous structure, apparently derived in part from the lower portion of the lateral border of the rectus sheath and in part from the lowermost portion of the transversus abdominis. The major portion of these fibers insert into the pecten of the pubis. Cooper's ligament extends from the pubic tubercle along the pecten of the pubis and continues posteriorly along the iliopectineal line at an angle of about 30 degrees to the inguinal ligament. It disappears near the iliopectineal eminence by blending with the periosteum. Harkins and Swenson, after reviewing the

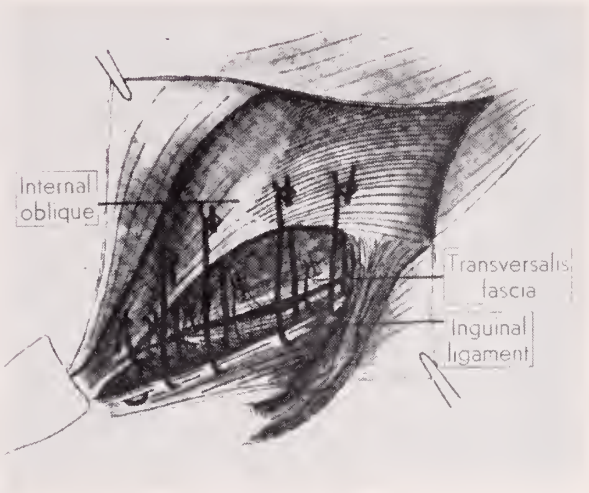

Fig. 4

literature, observed that the suturing of the transversalis fascia and attached structures to Cooper's ligament had been advocated and practiced by numerous surgeons from 1898 up to the present time.

Among the varied types of hernia, one of the most annoying is prolapse of the uterus, often associated with cystocele. Following repair of the cystocele I have found that suspension of the cervix with a strip of cutis passed through the strong fibrous tissue in the region of the tuberculum pubis, and again around the cervix a short distance below its junction with the body of the uterus, gives a strong and durable support that usually is very satisfactory to the patient.

DISCUSSION

The numerous controversial statements published relative to the treatment of hernia can be taken to indicate that no one of the many methods described is all that might be desired.

As to the use of the conjoined tendon which has been stressed by many in regard to repair, McVay has stated that usually it is an artifact of dissection. Rheinhoff, who did a number of cadaver dissections, found difficulty in demonstrating it.

Mattson states that in the treatment of recurrent inguinal hernias he at times cuts a flap from the anterior sheath of the rectus and pyramidalis muscles. He indicates that the rectus usually is equally strong throughout and can stand a little robbing. This flap is then sutured to the pubic ligament with interrupted sutures, each one taking bites in the periosteum. This usually gives a good, strong closure underneath the cord. With this procedure in mind, a reenforcement of cutis graft material should be at least equally effective, if not more so.

According to Clark, the classical conjoined tendon is supposed to be made up from fibers of internal oblique and transversus abdominis muscles, and forms an arch over the spermatic cord, inserting into the pubic tubercle and the pecten of the pubis. More careful analysis indicates that this so-called tendon is composed of two sheets of tissue lying anterior to the rectus abdominis insertion.

In closing the aponeurotic structures of the hernial opening we have made some use of the external oblique (which is said to be the strongest and most resistant of any of the muscles in the hernial area since it is made up entirely of aponeurotic tissue) in accordance with the method described by Lich and Samson. In the performance of this technic interrupted sutures of a permanent type are used. After the aponeurosis of the external oblique has been incised over the cord, the hernial sac exposed and dealt with, interrupted sutures are placed as follows: A bite is taken in the undersurface of the external oblique, thence into the edge of the transversalis fascia and thence into the lower border of Cooper's ligament; the sutures, about size No. 15 six cord thread made from long fiber Sea Island cotton, are spaced a little less than ¼ inch apart; or, stainless steel wire may be used. The most critical part of the operation comes in the placing of the suture adjacent to the iliac vein. The sutures are carried deeply enough to take a bite in the underlying periosteum.

At the outer portion of the hernial opening in the operative incision, the previously mentioned aponeurotic structures are sutured to the inguinal ligament.

Results in a large group (1,956) of cases studied by Babcock in which catgut and silk sutures were used showed an infection rate of 5.1 per cent with silk, and 15.04 per cent with catgut, or from 2 to 3 times the rate for silk; likewise, with catgut there were 12.5 per cent recurrences, with silk 3.5 per cent (1,484 cases). The smallest incidence of infections and recurrences, 1 per cent or less, followed the use of alloy steel wire sutures.

Dr. J. Bankhead Banks, Dr. R. E. Pence, Dr. H. A. Bailey and I have, during the past several years, made rather extended use of cotton thread as suture material in hernia repair and feel that it is generally satisfactory and easy to handle; that the percentage of recurrences following its use is very low. I am of the opinion, however, that stainless alloy steel wire sutures may have some definite advantages, with cotton running a good second. Since 1940 we have repaired in round numbers 700 hernias in which silk or cotton thread has been used as suture material, with a recurrence rate not in excess of 1 per cent.

There have been 6 cases of epigastric hernia and 29 cases of abdominal incisional hernia in which reenforcement has been made with cutis graft material; likewise, in 38 cases of uterine prolapse the cervix has been suspended with a strip of cutis in the manner previously described, with apparent good results for the most part.

SUMMARY

A brief review of some of the commonly observed types of hernia has been made. The causes are embryological anomalies, also other congenital defects, and the part they play is of considerable importance; likewise, the effects of long continued and repeated strain are to be considered.

The anatomy of the structures involved in regard to both direct and indirect inguinal hernia, also femoral hernia, is reviewed in the light of anatomical studies of the present day.

In the making of a satisfactory hernial repair it is believed that the surgeon should make full use of "white" fascia, also strong fibro-aponeurotic structures such as Henle's ligament, the pubic ligament, and the iliopubic band.

Incisional types of hernia are best dealt with by imbrication or definite overlapping, if possible. In case the surgeon cannot be reasonably sure of the permanency of the repair, reenforcement with an adequate sized cutis graft will contribute greatly toward the permanency of the result. Likewise, a strip of cutis tissue makes a very satisfactory support for the prolapsed uterus, especially when this procedure is carried out after adequate cystocele and rectocele repair.

It is believed that sutures of a nonabsorable type are most likely to give enduring results and that sutures of stainless alloy steel wire have certain advantages.

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CANCER OF THE COLON

I have always been envious of the obstetrician. Around a birth the mother is happy, the father is happy, the doctor is happy (provided he has not lost too much sleep), and for once in her life, even the mother-in-law is happy. Contrast that with cancer of the rectum—when gloom pervades—yet I can visualize a brighter picture if we were a little more practical. For instance: (1) Everyone knows that 75 per cent of all cases of cancer of the colon are located where they can be felt with the finger or easily seen with the proctoscope; (2) the roentgenologist knows that the rectum is a blind spot for early diagnosis; (3) We all know that it is easier to order an x-ray of the colon than to think.

Now suppose that the roentgenologist had to have an affidavit to make or the moral courage to refuse to do a colon x-ray before a digital and proctoscopic examination had been done. Who would be happy? (1) The patient, because it was discovered early, easily, and without much expense; (2) the doctor, in taking just pride in his accomplishment; (3) the roentgenologist, because he didn't make a mistake or cause an impending obstruction by filling the colon with barium. A few rules among ourselves may avert rules made for us by people on the outside, and we know that a lot of people are trying to do just that.—Thomas E. Jones, M. D., in Rhode Island Medical Journal.

TREATMENT OF BURNS

The early systemic disturbance following a burn is shock. This may be mild or it may be severe. It accounts for nearly all of the deaths in the first twenty-four to forty-eight hours. There are certain things about the shock in burns that should be emphasized.

First, it is pretty well agreed that the development of shock is dependent more upon the surface area of the body involved than on the degree of the burn. That, I think, is readily understandable. Second, the signs of shock may not be present early and may not present themselves until shortly before collapse occurs. As treatment is more effective if started early, it is best to assume that shock exists in all severe burns, that is, if more than 10 per cent of the body surface is involved. If one waits for the classical signs of shock such as rapid, thready pulse, low blood pressure, and cold, clammy skin to appear, one may not be able to effect a reversal of the pathologic physiologic disturbance. Third, it should be emphasized that burns of certain areas, particularly the face, abdomen, and genitalia, produce more shock than burns on other parts of the body.

The most important part of the treatment of burn shock is the administration of plasma. The decrease in circulating blood volume and the hemoconcentration are due solely to the loss of plasma and will be corrected by adequate amounts of plasma administered intravenously. The amount given should be adequate as judged by the clinical response of the patient and a reduction in the hematocrit to the normal of 45 and the hemoglobin to the normal of 100 per cent or 15 grams per 100 cc. of blood.

In cases of extreme shock rather large amounts of plasma can be given quickly, but it should be remembered that the increased capillary permeability lasts for some time and that a considerable portion of the plasma given may be lost. The amount computed to be necessary can be given in divided doses at intervals of three to four hours or slowly by the continuous drip method.

If plasma therapy has been adequate, it is rarely necessary after the first forty-eight hours.—Howard I. Down, M. D., in J. Iowa St. Medical Society.

IMMUNIZATION IN TYPHOID

It is apparent that immunization against typhoid fever—like virtually all other immunizations—affords a marked but not absolute degree of protection. As one would anticipate, numerous reports of typhoid fever in immunized persons have appeared during recent years. All reports stress the atypical nature of the disease in immunized persons, and two observers report a relatively high incidence of complications in such cases—a finding that may well be related to the difficulty, and hence the delay, experienced in making the diagnosis.—Geoffrey Edsoll, M. D., in New England Journal of Medicine.

The President's Page

Medicine is an institution established and dedicated for real service. While approximately eight hundred of our doctors have signified a willingness to cooperate one hundred per cent with the request of the Veterans Administration to furnish good medical care to the veteran in his home community, with free choice of doctor and hospital, a few have declined to proffer their services and have presented objections to the program. I, for one, do not see how any doctor, or any institution, could fail to make heroic response to this opportunity, this immense need. Our obligation to the boys in West Virginia who were compelled to take up arms in defense of our country should stir each and every one of us to new energies of helpfulness.

I am sure we all agree that over the last decade the initiative in medical care has passed almost completely from our hands into the clutches of the politician. To us it is nothing short of miraculous that General Bradley and his co-workers now offer to us a glorious opportunity to assume again the leading role in the drama that can mean the full restoration of lost confidence for free medicine in West Virginia and America. In carrying through with the VA program, both the doctor and the veteran are free to choose and reject at will.

In addition to providing good medical care to the veterans seeking our services, we have the opportunity to inspire strength of character and loftiness of ideals. Not only is it our duty, but it should be our pleasure to cooperate in every way to the end that our veterans of World War II may be made physically and mentally fit to fight life's battle with some reasonable assurance of success. It is my fervent hope that all of our members will participate in this program. We should never forget that we are permanently indebted to the veteran.

Andrew E. Arrick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journel, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

STATE SHORTSIGHTEDNESS

An intelligent and healthy citizenry is a necessity not only for the improvement of a democracy but even for its actual survival. Mr. Raymond Brewster, president of the State Board of Education and editor of the Huntington Herald Dispatch, has recently emphasized in his editorial columns the absolute necessity of paying those engaged in the education of our youth the actual value of their services as compared to the pecuniary reward afforded those in other lines of endeavor requiring education and skills on a par with those of laborers in the vineyard of education. The Richmond Times-Dispatch, in an editorial, presumably from the incisive pen of its brilliant editor, Mr. Virginius Dabney, bewails an error of shortsightedness on the part of the Old Dominion in not paying sufficient salaries to psychiatrists to keep the mental hospitals of that state supplied with sufficient medical personnel to staff them adequately.

The attitude of the two Virginias toward professional and scientific servants is not uncommon among the states of the union. In fact, we are probably about on an average with the other states. The recent publicity given by the lay press to the mental hospitals generally, although somewhat overdrawn we believe, will probably arouse the members of the state legislatures to the necessity of appropriating more for the care of the mentally ill. The number of teachers leaving education for more lucrative occupations likewise may jolt our legislatures into larger appropriations for teachers' salaries. Certainly those builders who erect the living edifice of our future citizenship deserve as much pay for their services as the carpenters, bricklayers and plumbers who construct our material edifices. And while we are at it, we bespeak also greater appropriations for our tuberculosis hospitals. O, would some beneficent deity open the eyes of our legislators to the human needs of the various states and move them to appropriate sufficient funds to meet adequately these human needs!

THE NEW HEALTH COMMISSIONER

The medical profession generally approves Governor Clarence W. Meadows' appointment of Dr. Newman H. Dyer as state health commissioner to succeed Dr. John E. Offner, who resigned to devote his full time to private practice at Fairmont.

It is encouraging to note that Doctor Dyer will not only continue but endeavor to expand the various activities initiated by Doctor Offner during his term of office. The public is undoubtedly more health-minded than at any time before, and Governor Meadows has already proved that he believes in divorcing from politics all matters concerned with public health; so, Doctor Dyer finds a fertile field in which to begin his activities as state health commissioner.

The new commissioner has long been identified with practice in and near the coal finds of southern West Virginia, and has always taken a keen interest in matters pertaining to public health problems. His experience as a member of the Council of the West Virginia State Medical Association, and as a member of Governor Meadows' advisory committee to the legislative interim committee studying public health problems, will be of inestimable aid to him in his work at the Capitol.

Doctor Dyer's duties will be anything but light. He will follow a heavy schedule for several months. He inherits the tremendous job of supervising a hospital survey in this state to determine our needs under the provisions of the recently enacted Hill-Burton Hospital Construction Bill. The new commissioner knows how to meet people, and already has enlisted on his side in public health work the aid of hundreds of forward-looking and progressive-thinking citizens of the state.

CHILD HEALTH SURVEY

Attention is called to a news item in this issue of the Journal in which Dr. Russell C. Bond, of Wheeling, state chairman of the American Academy of Pediatric's Study of Child Health Service, asks for the immediate return of schedules heretofore mailed to all doctors in West Virginia. The study initiated by the Academy is nationwide and covers all factors involved in child health services. The USPHS and the Children's Bureau are participating in the Academy survey, and doctors over the entire United States are being asked to do their part by supplying the information requested on the schedules.

The purpose of the survey is to assemble facts concerning infant and child care, and information is being obtained from all children's organizations, hospitals, clinics, laboratories, etc., to combine with the data supplied by the members of the medical profession.

It is important that schedules be returned to Doctor Bond without delay, and we urge every member of the State Medical Association to do his part in this important survey by completing and returning without delay the blank schedules mailed out some time ago.

THE BITUMINOUS SURVEY

The survey of health and medical aspects of the mining situation now being conducted in eastern Kentucky and southern West Virginia under the supervision of Admiral Joel T. Boone of the Navy Medical Corps bids fair to be productive of much good. Inasmuch as considerable uncertainty, not to say apprehension, has been present in the minds of many doctors serving these areas, Admiral Moreell has issued a memorandum explaining the objects of the survey. This we reproduce elsewhere in this issue and we commend it to our readers.

The survey in West Virginia and Kentucky is progressing according to schedule. We have come in rather close contact with the medical officer directing this team and are favorably impressed with him personally and with his earnestness and fairness in attempting to do a good job and collect factual data which present actual facts only.

THAT SUBCOMMITTEE REPORT

Commenting editorially on a report that the subcommittee of the Committee on Education and Labor of the United States Senate issued a statement favoring compulsory sickness insurance, the August 3 issue of *The Journal of the American Medical Association* says:

"Many doctors throughout the nation were startled by a widely circulated newspaper report to the effect that a subcommittee of the Committee on Education and Labor of the United States Senate had issued a report favoring compulsory sickness insurance. Accompanying the report when issued was a newspaper release of considerable length which indicated that it was the belief of this subcommittee that private medical insurance plans have failed; also that the report represented 'substantial approval of President Truman's health message and the Wagner-Murray-Dingell health bill by a bipartisan group of Senators; but neither are specifically endorsed.' The report was signed by Senators Pepper, Florida; Aiken, Vermont; Thomas, Utah; and Murray, Montana. It was stated that Senators Taft, Ohio, and Smith, New Jersey, dissented from some of the findings and conclusions of the report and that Senators Hill, Alabama, Tunnell, Delaware, and Morse, Oregon, 'have not completed their study of the subject of this report.'

"On July 23 Senator Donnell, Missouri, took Senator Pepper severely to task before the Senate, charging that the subcommittee had no right to issue such a report to the press before it had been submitted to the entire committee. He charged that the press release contained misstatements of fact and that the entire procedure was improper.

"On July 24 Senator Pepper replied, claiming that he had been trying to get action on his report because his committee was to be discharged on August 1. He admitted the misstatements of fact in the press release and he admitted that it was not proper to say 'bipartisan' when only one member of the minority party had given his assent. He admitted that there 'might be some technical delinquencies on the part of himself as chairman' but stated that 'it was not intentional,' and he apologized in the words 'I am exceedingly sorry that inadvertently such a thing may have occurred.' The Senate was so greatly concerned with the extension of price control that the debate was halted.

"This comment is published to reassure physicians that the Senate Committee on Education and Labor

has not acted on the Wagner-Murray-Dingell bill. The release of the report by Senator Pepper together with the press release may well be considered propaganda of the same type as has regularly characterized the actions of Senators Pepper and Murray."

CARE OF THE AGED

Dr. Marjory W. Warren, in a recent issue of the Lancet, has presented the case of the chronic aged sick, in who, so often, "dull, apathetic, helpless and hopeless, life lingers on sometimes for years, while those round them whisper arguments in favor of euthanasia." This is not the picture that should be presented, nor will it be when we fully awaken to our responsibilities, which are new in their present magnitude. The aged infirm we have always had with us, but owing largely to the triumphs of medicine, the span of life has steadily lengthened, and because of the war and the entrance of women into industry, there is a shortage of young persons available to care for the aging population.

The aged, in their hospitalization, need wards that are designed to meet their physical circumstances, that stimulate their accustomed surroundings and that are near their homes. They need diets suited to their age, and equipment adapted to their infirmities. They need floors that are not highly polished, handrails about their wards and elevators or suitably graded stairways.

Geriatrics should be as useful a specialty for the latter end of life as pediatrics is for the beginning years. In the words of the editorial accompanying Dr. Warren's paper, "Given domestic help, nursing care and medical attention when needed, many old people who now die after years in hospital could live interesting and possibly useful lives at home, finally dying triumphantly in their own beds."—New England Journal of Medicine.

TB AND THE WAGE EARNER

When the wage earner is stricken with tuberculosis, a tremendous adjustment is required in the living habits of the other members of the family. The steady income usually ceases abruptly, and the family provider is reluctant to enter a sanatorium, leaving his family unprovided for. A mother contracting tuberculosis is also loath to enter a sanatorium until reasonable provision has been made for the care of her children.

Many of these social and economic factors, which inhibit the control of tuberculosis, may be overcome if the welfare agency, in cooperation with the health authorities, takes a liberal and generous attitude toward the other members of the family who are potential cases of tuberculosis. Money spent in this manner should not be looked upon as charity, but as an investment or insurance by the state or municipality against future and large expenditures, which will undoubtedly follow if a niggardly policy is followed. Penny-wise policies will only add to the burden of the future taxpayer. It must never be overlooked that every case of tuberculosis prevented is not only money saved to the treasury but a life to the nation.—Can. Jour. Pub. Health, Jan., 1946, as reported in Tuberculosis Clip Sheet.

General News

OBJECTIVES OF COAL FIELDS SURVEY CLARIFIED BY ADMIRAL MOREELL

Admiral Ben Moreell, CEC, USN, Coal Mines Administrator, has issued a memorandum (Administrator's Memorandum No. 7) which is of interest to all doctors engaged in industrial practice in West Virginia. The memorandum follows:

1. The Krug-Lewis Agreement, dated 29 May 1946, provides among other things for a survey of medical and sanitary facilities in the following manner:

> "5. *Survey of Medical and Sanitary Facilities*:
> The Coal Mines Administrator undertakes to have made a comprehensive survey and study of the hospital and medical facilities, medical treatment, sanitary, and housing conditions in the coal mining areas. The purpose of this survey will be to determine the character and scope of improvements which should be made to provide the mine workers of the Nation with medical, housing, and sanitary facilities conforming to recognized American standards."

2. Reports which have recently come to the attention of the Coal Mines Administrator indicate that some misunderstanding may exist as to the mechanics and objectives of such a survey. The intent of this memorandum, therefore, is to set forth clearly the fundamental objectives of this survey in order to eliminate misunderstanding.

(a) The medical and sanitary survey is a fact-collecting and fact-finding activity. It aspires to collect all of the facts which relate to hospital facilities, medical treatment, sanitary and housing conditions in the coal mining areas.

(b) The collection of this data is pursued solely on a technical basis and is not in any way influenced or prejudiced by preconceived opinions, conclusions, or theories.

(c) The survey will explore all of the principal factors which contribute to the conditions, and standards of living in the coal mining areas.

(d) Time will not permit the survey of *every bituminous* coal mining community in the United States. Every effort has been made, however, to include in the survey properties of all types in order that the data thus collected may be truly representative of conditions obtaining within the industry. Sampling has been conducted on the basis of relative population of miners of each coal district, and in accordance with usual technical sampling methods.

(e) Initially, visits were made by the headquarters staff to selected areas throughout the country in order to gain an over-all picture and to lay the groundwork for later detailed surveys.

(f) Field groups are now making detailed surveys at mines selected by an approved scientific sampling procedure. The selection of an individual mine does not by any means indicate that living conditions at that property are substandard, normal, or above standard. The findings at this location, along with the data collected in many other locations by personal visit or by questionnaire, will be compiled statistically, without reference to name of mine or owner, for further study, and to be used as a basis for arriving at conclusions.

(g) Extreme care has been taken in the selection of

the personnel connected with the entire survey activity. This personnel, composed principally of naval officers, has an outstanding record of experience in preventive medicine, medical research, sanitation, housing, recreation, welfare and allied and pertinent subjects. They have been instructed to be absolutely objective in the execution of their unusual assignment.

(h) At all times, the conduct and scope of the survey will be restricted to impartial fact-finding. The final report, including the compiled data so collected will likewise be restricted to the facts obtained through the survey.

(i) Section 5 of the Krug-Lewis Agreement does not contemplate nor provide for any enforcement of improvements to rectify or alleviate any conditions which may be found to be substandard and are so reported by the survey. The survey can only hope to establish the facts of existing conditions and the conclusions based thereon, in order that future programs to raise health standards and to improve living conditions in the coal mining industry may be planned by other agencies.

3. Such a survey, with factual establishment of data reflecting the conditions influencing health and living standards of employees of the coal mining industry is a forward looking project and one that should have beneficial influence on the future planning of the industry.

4. The demonstrated cooperation afforded to the personnel of the survey group by both Operators and representatives of the United Mine Workers of America has been gratifying, and has been of material assistance in the collection of this data.

HOSPITAL SURVEY PLANNED

Plans for a general hospital survey in West Virginia have progressed to the extent that an effort is now being made to obtain the services of experienced officials to complete the work at the earliest possible date. The survey is being arranged by Governor Clarence W. Meadows as the result of the passage by Congress of the Hill-Burton Hospital Construction bill. Members of the legislative interim committee studying public health problems, the state health department, and the West Virginia State Medical Association are cooperating in the survey.

Under the bill passed by Congress, $75,000,000 a year will be appropriated for five years for hospital construction and maintenance. The government will provide two-thirds of the amount required, and the other third will be supplied by the state, political subdivisions or private non-profit hospital organizations.

Tentative figures compiled by the United States Public Health Service show that West Virginia will be entitled to $1,555,000 per year for a building program. In addition, probably $20,000 will be available for survey and planning purposes.

Under the provisions of the bill, Governor Meadows will appoint an advisory committee to confer with officials of the state health department concerning this program. In 1945, the legislature designated that department as the sole agency to cooperate with the government in a hospital construction program.

OVER 300 PHARMACIES PARTICIPATING IN VETERANS CARE PROGRAM IN STATE

The agreement which has been formally executed by the Veterans Administration and the West Virginia State Pharmaceutical Association names the association as the agency through which pharmacists are to be paid for prescriptions filled under the program.

All prescriptions must be written by doctors in duplicate. After filling the prescription, the original is to be mailed by the participating pharmacy to the State Pharmaceutical Association, which will total the prescriptions and bills for services and submit the same for payment to the Veterans Administration Regional Office, at Huntington.

In issuing prescriptions, doctors must use an original written prescription on his own printed prescription blank. The prescription must bear the date written, the name and address of the patient and be signed by the prescribing physician over the statement "I am authorized to treat and prescribe for the above-named Veterans Administration patient." The Veterans Administration—state pharmacy service plan prescriptions are subject to reimbursement only if (1) dated by the physician, and (2) filled by the pharmacy within ten days of the date written.

Copies of narcotic prescriptions showing the authorization and name of the prescribing physician and the acknowledgment of receipt and name of the beneficiary and the signature of the compounding pharmacist under the following statement, "I certify that this is a true copy of prescription No..... on file at the..... (name of pharmacy)" will be accepted as evidence in supporting claim for payment of narcotic prescriptions.

According to Roy Bird Cook, secretary of the State Board of Pharmacy, over 300 pharmacies in West Virginia are now participating in the veterans care program.

DECREASE IN MEASLES MORTALITY

According to records compiled by the state health department, there has been a marked decrease in measles mortality during 1945 and the first 6 months of 1946. During this period, there has been but one death for every 225 cases reported, as compared with one death for every 90 cases reported over the past 15-year period.

The decrease is attributed by Doctor Dyer, state health commissioner, to the free distribution on a state-wide basis of gamma globulin, the preventive serum for measles. During that period, the department has distributed over 4,000 doses of the serum. The American Red Cross has released to state departments of health surplus supplies of the serum which were accumulated during the war for use in the armed forces. The distribution is being made to physicians by local city and county health officers.

PEDIATRIC SCHEDULES OVERDUE

Dr. Russell C. Bond, of Wheeling, state chairman of the American Academy of Pediatric's Study of Child Health Services, reports that the results of the survey at the present time show that West Virginia physicians are not cooperative to the extent desired.

Full cooperation of every member of the West Virginia State Medical Association is needed if this state is to be at the top or near the top of the forty-eight states participating in the study.

Doctor Bond requests that every member make a special effort to return the schedule immediately, and all members are also requested to check with the doctors in their home communities to encourage them to make prompt return of their schedules.

A report prepared by Doctor Bond as of September 12 shows that nearly 1,000 physicians in this state have not yet returned their schedules to the Pediatric Survey group. The help of all doctors is needed immediately if this survey is to be completed so far as West Virginia is concerned. The report prepared by Dr. Bond is as follows:

Series I

Schedule I-A. General Hospitals.
(To be handled by the State Health Department and just now getting underway.)
Schedule I-D. Hospitals—Pediatric Survey.....40%

Series II

Schedule II through G. Health Jurisdictions.
(State Health Department has not reported on number returned and reviewed.)

Series III

Schedule III-A. Physicians in Private Practice...43%
Schedule III-B. Pediatricians in Private Practice 8%
Schedule III-C. Dentists in Private Practice.....40%

TB ASSOCIATION ELECTS

Dr. W. P. Bittinger, of Summerlee, was elected president of the West Virginia Tuberculosis and Health Association at the annual meeting at Clarksburg September 20-21. He has been a member of the board of directors since 1942, and has served as vice president since 1943. He succeeds Dr. Leo H. Mynes, of Charleston, who has served as president since 1940.

Other officers were elected as follows: Vice president, Dr. W. L. Cooke, Charleston; secretary, Dr. J. L. Patterson, of Holden; and treasurer, Robert C. Hawkins, of Charleston. E. P. Wells, of Charleston, continues as executive secretary.

It was announced that, during the term of office of Doctor Mynes, annual sales of Christmas Seals increased from $49,253 (1940) to $117,000 (1945). Sixteen new county associations were organized during that five-year period.

DEAN GRAY RESIGNS

Dr. Jacques P. Gray, dean of the Medical College of Virginia, at Richmond, since 1942, has resigned to accept appointment as dean of the Oklahoma University School of Medicine. No successor has been named.

PROGRAM ON CARE OF THE HEART

Interest in the control of heart disease is currently being enhanced by the efforts of many professional and lay groups. This attention to heart ailments has long been warranted. The public is becoming more acutely aware of cardiac hygiene than ever before—a growing interest that should be cultivated and guided with judgment as well as vigor.

During the past third of a century, the improvement in mortality from heart disease was not pronounced in the younger age groups and decreased progressively with advance in age. The death rate from diseases of the heart and arteries, corrected for the ageing of the population, dropped virtually 30 percent between 1911-15 and 1940-44, according to experience among the Industrial policyholders of the Metropolitan Life Insurance Company. This reduction in mortality from the principal cardiovascular-renal diseases has been particularly marked among white females—37 percent in the above-mentioned period. Among the males, the decrease in mortality, while not as marked as among the females, was 25 percent, still a quite substantial reduction. This still leaves much to be desired in the field of early diagnosis and immediate initiation of adequate cardiac regimes in order to reduce to a minimum incapacity and mortality from these conditions. Concentration of effort must now be placed on teaching the public what is known about prevention, early recognition, and care of cardiac lesions.

In order to assist in the attainment of this goal, the Metropolitan Life Insurance Company is conducting a special campaign on heart disease during the fall and winter months. At that time, the Company's more than 20,000 Field Representatives, in cooperation with official and voluntary agencies, will reach the homes of millions of policyholders with a recently published pamphlet, YOUR HEART, developed in cooperation with the American Heart Association. A lay educational film on heart disease is also being prepared. Distribution will be made to physicians of a packet in which will be included material of special interest to doctors, and a scientific exhibit on heart disease, first shown at the A. M. A. meeting in San Francisco, is available for State and local professional meetings.

RELOCATIONS

Dr. E. O. Wright, of Fairmont, has moved to Clarksburg, where he has offices at 518 South Fifth Street.

* * *

Dr. E. R. Cooper, who has been in charge of the female section at Southwestern State Hospital in Marion, Virginia, for the past several months, has resigned and will engage in general practice at Man.

* * *

Dr. Meryleen Bailey has moved from Williamson to Rock.

COLLEGE OF PHYSICIANS OF PHILADELPHIA

NEW HEALTH COMMISSIONER

Dr. Newman Houghton Dyer, of Bartley, has been appointed State Health Commissioner by Gov. Clarence W. Meadows to succeed Dr. John E. Offner, resigned. He assumed his new duties September 1.

Doctor Dyer is a native West Virginian, having been born at Webster Springs. He received his academic education at West Virginia Wesleyan College and West Virginia University, graduating from the latter institution with the degree of B. S. He completed the first two years of his medical education at the West Virginia University School of Medicine, and received his M. D. degree from the University of Maryland School of Medicine in 1926. He was licensed to practice in West Virginia the same year and opened offices at Raysal. A short time afterwards, he moved to Bartley, where he was engaged in practice at the time of his appointment.

Doctor Dyer spent several months during 1945-46 at the University of Michigan, in Ann Arbor, taking a postgraduate course leading to a master's degree in public health. He expects to complete his work there in the near future. Doctor Dyer has been a member of the Council of the West Virginia State Medical Association for the past three years and is also serving as a member of the advisory committee to the legislative interim committee appointed by Governor Meadows to study public health problems.

BLOOD PLASMA STILL AVAILABLE

The State Health Department is continuing to receive, store, and distribute blood plasma to doctors and hospitals in West Virginia. Requests for plasma should be made by mail or wire addressed to the department at Charleston. Shipment will be made without delay.

Blood plasma was made available to West Virginians without charge in February, 1946, through the American Red Cross. According to Dr. N. H. Dyer, state health commissioner, 3,710 units have already been distributed, 3,304 units having been shipped to hospitals, and 406 units to doctors. While neither the American Red Cross nor the state health department charges for the plasma, doctors are entitled to a fee for their services.

The plasma, collected during the war for use by the armed forces was declared surplus by the Army and Navy and returned to the American Red Cross, which, in turn, has been making distribution of it through state health departments. At the beginning of the program, 1,250,000 units were available, an amount estimated to be sufficient to meet civilian needs for two years.

CLEVELAND HOST TO APHA

The 74th annual meeting of the American Public Health Association will be held at Cleveland, November 12-14. Joint headquarters for delegates will be maintained at the Hotels Statler, Cleveland, Hollander, and Carter. All meetings will be held in the Cleveland Auditorium.

DR. ROWNTREE RECEIVES AWARD

Dr. Leonard G. Rowntree, chairman of the American Legion Advisory Board, became the seventeenth civilian to be recognized by Presidential order for wartime service when the medal of merit was bestowed on him "for meritorious conduct in the performance of outstanding services to the United States." Doctor Rowntree served as chief of the Selective Service Medical Division during World War II. The award was made on September 12 by Gen. Lewis B. Hershey, Selective Service Director, in the name of the President.

Doctor Rowntree was a guest speaker at the rehabilitation dinner sponsored by the American Legion, Department of West Virginia, in connection with the 79th annual meeting of the West Virginia State Medical Association, at Huntington, May 14, 1946.

NURSES MEET AT CLARKSBURG

Dr. C. O. Sappington, of Chicago, industrial health consultant of the USPHS, and editor of Industrial Medicine, has been named a panel speaker for the industrial nurses section at the annual convention of the West Virginia State Nurses Association, to be held at Clarksburg, October 31, at 2:00 P. M. A panel discussion has been arranged on "The Activities of Industrial Nurses." Others participating are Mr. H. L. Byrnes, assistant industrial relations supervisor, Carbon and Carbide Chemical Corporation, South Charleston; Mrs. Rachel Ferguson, nutrition consultant, State Health Department; and Miss M. E. Ingoldsby, industrial nursing consultant, bureau of industrial hygiene, state health department.

All physicians interested in industrial health are invited to attend the meeting.

EMIC CASES EXCEED 14,000

During August, 1946, 213 applications for obstetrical care under the EMIC program were filed with the state health department, according to Dr. N. G. Angstadt, acting director of the division of maternal and child hygiene. Of this number, a total of 176 applications were approved and 376 cases were completed during the month. For the same month, 50 applications were received for infant care, 36 being approved. A total of 72 infant cases were completed during August.

Since the program was inaugurated in May, 1943, 16,664 applications for maternal care have been filed, and a total of 12,696 approved. Deliveries by doctors total 9,359, osteopaths 409, and midwives 7.

For every child born in the home, four have been born in West Virginia hospitals.

A total of 2,416 applications for infant care have been filed since May, 1943, and 2,079 cases approved. As of September 1, 1,959 infant cases have been completed.

The amount paid doctors under the EMIC program for maternal and child care for May, 1943, through August, 1946, exceeds half a million dollars. The exact total is $586,892.36. The total amount paid hospitals under this program for the same period amounts to $471,782.11. The amount paid for hospital and medical care during that period totals $1,058,674.47.

CHANGES AND LIBERALIZATIONS ANNOUNCED IN STATE VA PLAN

The headquarters office of the West Virginia State Medical Association at Charleston has received a communication from Dr. Leo F. Steindler, chief medical officer at the Veterans Administration Regional Office, at Huntington, in which certain changes and liberalizations of the veterans care program in this state are discussed.

As the contents of the letter will be of interest to all doctors who have qualified as fee-designated physicians under the West Virginia plan, the letter is reproduced in its entirety as follows:

Authorization for Treatment

Attention is directed to the submission of Veterans Administration Form 2690 requesting authorization for treatment rendered. If this should be an emergent condition or a condition not emergent but requiring prompt treatment, there will be permitted 15 days for the submission of this Form 2690 without the request becoming delinquent, instead of five days notice required previously. This does not in any way alter the fact that notification for emergency hospitalization must be made within 72 hours.

Eligibility

There has also been a change in the request for authorization for out-patient treatment or emergency hospitalization. Previously, the eligibility of entitlement to treatment on prima facie evidence was after a claim on Form 526 had been submitted for pension purposes, but action by the adjudication section had not been completed as to entitlement to monetary benefits and service-connection. The provisions of the acceptance of prima facie evidence has been liberalized, and prima facie eligibility has been generally defined as that evidence which is considered sufficient to justify the conclusion of medical officials of the Veterans Administration that the disability for which the veteran desires treatment will, at all probability, be rated as service connected, and that the character of the veteran's discharge permits such authorization.

For the authorization of out-patient treatment or emergent hospitalization by private physicians and hospitals, it is necessary that the following provisions be observed. First, that out-patient medical or dental treatment be rendered at a Veterans Administration field station such as a regional office or hospital, if feasible and available. Secondly, that out-patient medical or dental treatment can be rendered on a fee basis by private physicians or hospitals when conditions do not permit veteran's treatment at a Veterans Administration field station, regional office or hospital.

In the event of emergent hospitalization the same criteria will apply: emergency hospitalization in Veterans Administration hospital or, if this is not available, emergency hospitalization in a private or contract hospital. All that is required of a veteran in order to make application for treatment is any document in writing signed by the veteran in which he claims a service-connected disability. His statement should include the locations where treatment was rendered, the time that treatment was given during military service and any other facts that might help to establish the assumption that service connection may be eventually established by the rating agency.

In the event of extreme emergency where delay would be hazardous, authorization should be secured for treatment or hospitalization by telephone or by letter forwarded before the expiration of 72 hours in the case of hospitalization and 15 days in the event of out-patient treatment.

Should treatment or hospitalization be authorized on a prima facie determination of eligibility, it is essential that the physician note on Form 2690A, which is a form submitted at the end of each month indicating the number of treatments and the type of treatments rendered, the explicit facts as to the above and the diagnosis, and, if possible, a few clinical symptoms to substantiate the diagnosis and, also, note the type of treatment rendered.

This is impertant, as following the authorization of the treatment for presumption of service connection, a determination must be made by the rating board as to the actual existence of service-connected disability, before eligibility for continued out-patient treatment can be established and any further authorization on subsequent recurrence of the disability can be approved. Once the determination of non-service-connection has been made by the rating agency, no authorization for further out-patient treatment or subsequent hospitalization in a private or contract hospital can be approved. Should a veteran be found ineligible for hospitalization following authorization for emergent hospitalization on prima facie evidence determination, the Veterans Administration is liable until the veteran's condition permits his discharge from the private or contract hospital or his transfer to a Veterans Administration hospital.

Physicians, in requesting hospitalization for treatment of veterans who have not filed claims or their claims have net been rated, should keep in mind that disabilities due to any intercurrent diseases or injuries or acute conditions without evidence of previous pathology, or diseases having a short period of incubation and conditions requiring surgical treatment of optional or purely corrective type without evidence of service connection, are ones that cannot possibly be considered disabilities that can be accorded out-patient treatment.

C-Number Necessary

Physicians requesting authorization for any treatment whether out-patient or hospitalization should, if possible, supply the C-number or claim number of the veteran, as this assists materially in rapid identification of the veteran and enables prompt management of his case. It is called to the attention of all that the existence of a C-number has no bearing on the service-connection or non-service-connection of the veteran's disability, as all correspondence, reports and papers of any type received in a regional office are given a C-number to facilitate identification and not for the purpose of the establishment of any claim.

Female Veterans

Female veterans are eligible for emergency hospitalization for service-connected or non-service-connected disabilities at private, contract or Veterans Administration hospitals upon proper prior authorization being obtained or notice within 72

hours of their admission in writing, except for pregnancy or childbirth. In reference to out-patient treatment of female veterans, the requirements must be in accord with principles outlined above, service-connected or prima facie evidence of presumption of service-connection must exist.

PHC LICENSES 67 DOCTORS

The number of doctors licensed to practice medicine in West Virginia as a result of the examination held in Charleston, July 15-17, set a modern, if not an all-time record for licenses granted by the Public Health Council following an examination called for that purpose. According to figures released by Dr. N. H. Dyer, state health commissioner, the number licensed by examination and reciprocity totaled 67. This compares with 38 for the entire year 1945.

Already this year 132 doctors have been licensed, and another examination is scheduled for October 7-9. The highest total for any previous year, at least during the past ten years, was reached in 1937, when 123 doctors were granted licenses.

The number of applications already filed for the October examination exceeds 35, and it is now thought probable that the year's total number of licensees will reach at least 175 when the results of that examination are known.

The following doctors were licensed by examination: George Stephen Appleby, Martinsburg; Charles Wade Asbury, Slab Fork; Gareth Bonsack Barnes, Eglon; William Mark Bruch, Bluefield; Robert Luikart Chamberlain, Philippi; Robert Thornhill Coffman, Keyser; William Edgar Copeland, Huntington; Robert Stanley Cunningham, Wheeling.

Charles Emmett Davis, Jr., Beckley; Karl Anton Dillinger, Weston; Paul Spiro Gotses, Fairmont; Charles Henry Hagan, Jr., Huntington; Richard Franklin Hawkins, Lewisburg; George Douglas Hayden, Huntington; Alfred Joseph, Whitesville; Brown McDonald, Jr., Martinsburg; John Strother McKee, Jr., Martinsburg.

Joseph Luke Ponka, Morgantown; William Harry Robinson, Morgantown; Daniel Jack Schlesinger, Hammond, Indiana; Melvin Andrew Schmutz, Alderson; Charles Judy Sites, Parsons; Raymond Sorenson, Huntington; Fae Hedrick Spurlock, Oak Hill; John Early Stone, Huntington; Chris Arthur Voelker, Morgantown.

Those licensed by reciprocity were: Esta Ross Allen, Clarksburg; Julius Lyons Berkley, Charleston; Robert Martin Biddle, Parkersburg; George Henderson Brown, Wheeling; Samuel Jacob Bucher, Harman; John Harold Burke, Elbert; Eli Carl Clair, Belle; Karl Peter Conklin, Huntington; Richard Wylie Corbitt, Parkersburg.

John Lee Crites, Charleston; Sam Paul Davidson, Boomer; James John Del Vecchio, Wheeling; Martin Donelson, Jr., Glen Ferris; Albert Charles Esposito, Huntington; James Allen Farley, Delbarton; Richard Edward Flood, Hollidays Cove; Rodgers Winters Harshbarger, St. Albans; Howard Allen Hoffman, Elkins; Jack Willison Hunter, Buckhannon.

Barnett Morton Hyman, Montgomery; Edgar Wilson Kirby, Jr., Bluefield; Beatrice Hart Kuhn, Charleston; Richard Allen Lewis, Charleston; George Roy Mullins, Logan; Thompson Pearcy, Charleston; Frank Earl Poole, Huntington; Edward Burl Randolph, Lost Creek; John Otto Robben, Wheeling.

Richard Jarrett Sexton, Charleston; John Franklin Sinnett, Superior; James Floyd Slaughter, Charleston; Paul McLachlin Stoddard, Wharton; Jay Edwin Stoeckel, Charleston; Margaret Louise Thomas, Charleston; Anne Wight, Montgomery; Reuben Franklin Wohlford, South Charleston; Edward Andrew Zepp, Martinsburg.

SOUTHERN MEDICAL ASSOCIATION MEETS IN MIAMI NOVEMBER 4-7

West Virginia will be well represented at the 40th annual meeting of the Southern Medical Association, which will be held at Miami, Florida, November 4-7, 1946. Headquarters will be opened at the McAllister Hotel, and rooms are available at the bay front hotels and those located elsewhere in Miami and Miami Beach.

Meetings will be held in the municipal auditorium, on Biscayne Boulevard, and all the technical and scientific exhibits will be set up there. Most of the downtown hotels are located within walking distance of the auditorium. Room reservations should be made without delay.

Dr. M. Y. Dabney, of Birmingham, is president, and will preside at the general sessions. Dr. E. L. Henderson, of Louisville, is the president elect, Dr. Lucien A. LeDoux, of New Orleans, the first vice president, and Dr. Oscar W. Frickman, of Newport, Kentucky, second vice president. The general arrangements are in charge of Mr. C. P. Loranz of Birmingham, who has served for many years as secretary-treasurer and general manager of the Association.

Dr. Ray M. Bobbitt, of Huntington, will preside as chairman of the section on urology. Two other Huntington doctors, Dr. R. J. Wilkinson and Dr. J. J. Brandabur, will take part in the program. Dr. Wilkinson is secretary of the section on surgery, and Dr. Brandabur is secretary of the section on industrial medicine and surgery. Dr. Ray M. Bobbitt is also a member of the Council of the Southern Medical Association.

The Woman's Auxiliary to the Southern Medical Association will meet in Miami at the same time. Mrs. John P. Helmick, of Fairmont, immediate past president, is now parliamentarian of the Auxiliary.

DR. JAMES R. BLOSS HONORED

At the regular annual meeting of the American Association of Obstetricians and Gynecologists, held Sept. 5-7, at Hot Springs, Virginia, Dr. James R. Bloss, of Huntington, was reelected secretary. Other officers were elected as follows: President, Dr. Archibald D. Campbell, Montreal, Quebec; vice president, Dr. Adam P. Leighton, Portland, Maine; president-elect, Dr. Robert D. Mussey, Rochester, Minnesota; assistant secretary, Dr. Leroy A. Calkins, Kansas City, Kansas; treasurer, Dr. Ward F. Seeley, Detroit, Michigan.

The meeting was the most largely attended of any held in recent years. The 1947 meeting will also be held at the Homestead, at Hot Springs, September 4-6.

PHA MEETINGS IN OCTOBER

The regular fall district meetings of the West Virginia Public Health Association will be held early in October. The southern district meeting will be held at the West Virginian Hotel, at Bluefield, October 4, with the northern district meeting following at the Hotel Fairmont in Fairmont, October 11. The general sessions will be convened at 10:00 A. M., and section meetings are scheduled to begin at 2:00 P. M.

THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII NOVEMBER, 1946 No. 11

A METHOD OF APPROACH TO PSYCHOSOMATIC PROBLEMS IN ALLERGY*

By JOHN H. MITCHELL, M. D., and
CHARLES A. CURRAN, Ph. D.
Columbus, Ohio

Early in our experience with patients suffering from allergy, we realized that they could be separated into two groups. I feel sure that many physicians have had a similar experience in treating other types of illness as well as allergy and will readily recognize the distinctive features of the two groups.

In Group A were those who followed the rules of allergy, giving a typical clinical history either seasonal or perennial, wherein one could strongly suspect some extrinsic factor such as pollen, mold spores, dusts, animal danders, drugs or foods, as the cause of the symptoms. The patient relates the history of his illness in a very matter-of-fact, objective manner, usually not making any attempt to exaggerate or to impress the physician with the degree of suffering he has to endure. Consistently our records show brief, clear and concise statements which later can be correlated with laboratory findings and clinical observations.

Characteristically, the reactions to exposure are prompt and as a rule it is not difficult to observe the connection between cause and effect. These patients give immediate positive wheal reactions to skin tests made by the scratch or prick method. Exceptions are certain synthetic chemicals such as aspirin, phenolphthalein and other drugs wherein the mechanism of the allergy is not yet clearly understood. The relationship, however, between the ingestion of the drug and the appearance of clinical symptoms such as hives and various eruptions is quite clear and can be reproduced at will if the patient is willing to ingest the drug again as a clinical trial. In cases in which dermatitis is due to external contact with allergenic substances like plant oils, solvents, dyes and chemicals, the patch or open contact test reproduces in miniature the original lesion usually within twelve to forty-eight hours. In those patients with hay fever, asthma or atopic eczema one will frequently discover that other members of the family suffer from one or more of these manifestations. This familial relationship, however, is not present in contact dermatitis or drug allergy.

Once the etiological agent has been identified and removed from the environment the symptoms usually subside within a few days. When avoidance is impractical or impossible, gradually increasing immunizing innoculations will build up sufficient tolerance to naturally occurring substances so that approximately 80 per cent of cases will obtain 80 per cent or more satisfactory results. The clinical manifestations of allergy in this group of patients are not difficult to understand and since they follow certain recognized courses, the diagnosis and treatment constitute a very satisfying and pleasing procedure for both patient and physician.

In contrast, however, there is another large group comprising about 50 per cent of our non-seasonal patients who consult us because of symptoms which closely resemble or may be identical with those described in Group A. These shall be designated as Group B, or the 'multiple complaint'

*Presented before the 79th Annual Meeting of the West Virginia State Medical Association, at Huntington, May 15, 1946.

group. These patients have asthma, persistent nasal obstruction, sneezing and clear, watery nasal discharge, eczema (which may be identical in appearance with the socalled atopic type), gastro-intestinal symptoms, headaches (which may be simple or may be classified as migraine or histaminic cephalalgia), chronic urticaria, and dermatographism.

Characteristically, these symptoms are perennial and recur for periods of weeks, months, or years, often with unexplained intervening periods of remission. Usually, there are predictable daily variations in severity so that the patient may come to anticipate that his hives will be worse on arising in the morning, or at 4:00 p. m., or just before bedtime. His asthma may come on during sleep or he may fear to see the sun go down because he knows wheezing will begin about dusk, or he may wheeze continuously. Nasal symptoms are characteristically worse as soon as he gets out of bed in the morning or lies down at night.

A careful and critical clinical history fails to give any significant clue to specific etiological causative agents such as those described in Group A. Skin tests by scratch or prick method are negative. Not infrequently, however, when tests are made by the intracutaneous technique, minor increases in wheal size may be interpreted as positive and the further assumption made that the test substance is the cause of symptoms.

We have called Group B also the "multiple complaint" group because there is sharp contrast in the history. The majority of this second group complain very bitterly, and seemingly out of proportion to the severity of the illness. If permitted to talk about themselves freely, they recount many other complaints and symptoms in addition to the chief allergic complaint, such as fatigue, nervousness, headache, sleeplessness, chilliness, nightmares, muscular aches and tenderness at the point of bony attachment of tendons, pain over the sinuses, gastro-intestinal symptoms referable to stomach and colon, and "heart consciousness." From a psychological point of view, these patients have temporary difficulties of memory, and a foggy and confused feeling. They are readily upset, their feelings are easily hurt, and they have all kinds of difficulties which can be related to the functional level. Spontaneous statements such as the following are often made during the first interview: "My home life was not the best." "I did not agree with my parents." "I did not agree with my parents' way of rearing children." "I worried all during pregnancy for fear I might have an allergic child", ad infinitum.

In addition, while the patient is giving the history, the physician often observes a wide variety of abnormalities of bodily function and of behavior. He may note one or more of the following: flushing areas of the neck which come and go, hyperactivity of the hands or fingers, affectations of speech or facial expression, frequent, short, affected laughter between statements, sighing respirations, coughing and throat clearing which often disappear as the interview progresses, and many other evidences of anxiety. Or the patient may be shy, uncommunicative, and withdrawn, making history-taking a slow,tiresome procedure. It is not unusual for the severity of an asthmatic attack to subside as the patient discusses his feelings. In brief, there is a very sharp contrast in total personality between the patients in Group A and those in Group B, and this great basic difference is usually so obvious that one can often anticipate even while taking the history that the patient will, or will not, show positive skin tests. There are a few exceptions, of course, but the general rule seems definitely to apply.

Our observations indicate that it was obvious that physical treatment was almost useless even though occasionally someone would benefit by suggestion. Many patients stated that they were made worse by treatment of any kind. Various psychotherapeutic approaches were tried. Direct questioning and interpretation seemed only to create resistance, hostility, or a refusal to accept the view that psychic conflict or confusion could produce bodily changes.

Late in 1943 we learned of the work which Carl R. Rogers and Charles A. Curran were carrying on in the department of psychology at Ohio State University. Rogers and Curran were analyzing minutely the statements of the therapist and the patient as recorded phonographically. The combined research of Rogers, Curran and others resulted in the development of a predictable, teachable technique which has come to be known as 'nondirective psychotherapy'. Dr. Curran's recently published book, "Personality Factors in Counseling"[1] complements Rogers' work[2] and outlines the nondirective method and the dynamics by which adjustment and psychological growth occur.

Since August, 1945, we have employed this

[1]Curran, Charles A., Personality Factors in Counseling, Grune & Stratton, 1946.

[2]Rogers, Carl R., "Counseling and Psychotherapy," Houghton & Mifflin, 1942.

technique in obtaining over 100 histories. These histories are not "taken"; rather, the patient is made to feel at ease and is permitted to talk about himself in any way and in any order that he wishes. The first interview may require from thirty minutes to one hour, and subsequent interviews are limited to thirty minutes each. The patient is encouraged to talk not only about his complaints but also about his inner feelings. The asking of direct questions is avoided. When the patient is allowed to express his feelings freely, one is amazed at the amount of information which can be obtained. There is no hostility and no resistance when the patient is made to feel at ease and is free to talk about himself. By this method not only do we obtain excellent histories, but the procedure has a therapeutic value for the patient which is often surprising. Not infrequently, after one or two interviews without any other form of therapy, patients will remark that they feel better generally and that their symptoms have abated. In other instances, it may require ten or twenty interviews to achieve the desired result.

Previous to our use of the nondirective technique, we were reticent in blaming psychogenic factors unless all possible physical tests and examinations had been made and found to be negative. Now, we feel that it is not necessary to make such a diagnosis by exclusion, and we are quite willing to diagnose the maladjusted state from the information obtained in the history. Of course, it is necessary and wise to make a complete physical examination so as to rule out significant organic disease or to note any anatomical changes which may be present, even though one may not feel that they have a part in the production of symptoms. Allergy skin tests are still made on this group since it is usually necessary to use this means of convincing the patient that he is not sensitive to certain foods, dusts, or any other causative factor, and that he need not diet himself. Some allergists have discontinued skin testing in cases of chronic urticaria and chronic gastro-intestinal symptoms, but the majority continue to investigate all cases of respiratory allergy by accepted allergy techniques. This seems to be the wisest course, but one must be on guard lest he give the patient the impression that every case of asthma and perennial rhinitis must be on an allergic basis and therefore that the skin tests will designate the causative factor.

This new point of view has had a noticeable effect on our ability to diagnose many cases which heretofore were always unsolvable frustrations. We have been able to help a considerable number who, had they come previously, would have been eventually turned away with little or no improvement, or may even have been made worse by the use of physical treatment or nonspecific injections which would have tended only to fix the neurosis more deeply, and to build up additional resistance to any suggestion that the symptoms could possibly arise as the result of emotional disturbances.

We question now our natural tendency to blame all the patient's symptoms on some minor pathological change which we may be able to demonstrate, or to feel that we have solved the problem if some minor deviations from the normal are indicated either in the physical examination, laboratory tests or the skin tests. Actually these findings do not solve the problem but usually complicate the picture all the more. On the other hand, when we approach these patients from the psychological point of view, we find that a large number prove to be maladjusted and may receive noticeable help from psychotherapy.

The second part of this paper, written by Dr. Curran, will describe the various psychological factors that enter into these cases. He will present, too, in brief form, some pointers in the nondirective method as applied to physicians.

A great aid to research in psychosomatic problems and psychological factors has been the development under the direction of Dr. Carl R. Rogers, of a technique of phonographically recording interviews. As a result, we have available for further study and analysis many cases which are accurate word for word typescripts of all that transpired in the interviews. This is a vast improvement over the previous methods, i. e., sketchy notes which the counselor jotted down during the interview, or the vague memory of certain points after the interview was over. We will use excerpts of these typescripts for illustration They are the exact statements of the patients themselves.

The following is the opening statement of a young Army officer which is typical of civilian as well as army psychosomatic problems:

(C = patient; T = counselor).

C: I'll tell you, until about a month ago, I felt as if my trouble was entirely physical. In fact, I guess it is a natural tendency to hope it is. I had severe headaches for about eight years, and for the past year and a half I'd say they'd become much worse, and I became extremely nervous and I was in the hospital for a month last winter, and they

diagnosed it there as allergic rhinitis, and when I came here—I came here three months ago—I got a skin test out here and tested allergic to mold spores. They began giving me shots, but it didn't affect the headache in any way, so I went to see Dr. M., and after I had this test in the morning, I went back in the afternoon. In the course of the conversation, he maneuvered around very cleverly, and asked me if anything had happened in my life which I would care to discuss. He said "not since you've been here—I mean—maybe years ago." I asked him point-blank if what I tested allergic to could have caused the trouble I mentioned. He said that although it was possible, he did not think it probable in my case since I had it the year round. (pause.) I saw Captain A. at the field. He's one of the flight surgeons, and I went and talked to him about my trouble, and I found out I knew more about it than he did. I noticed when I was talking, my headache got much worse and for about a week later I seemed to have just stayed that way, and became very nervous. I can hear a doorbell and someone walk heavily and all sorts of things like that. I seem to be constantly on a tension. I become very nervous. I've gone over a week without eating. I couldn't touch anything, that was last winter when it was positively the worst, and although the weather was very bad down there, it was very damp, and one of the things which I tested very allergic to is damp weather—at least three months ago when I was tested at the army base. Dr. M. said he had never heard of a case where dampness caused such a violent reaction. I think maybe that this physical trouble more or less set off a nervous condition and resulted in the extreme nervousness and this would explain the fact that I couldn't eat and I'd throw up and a couple days I could hardly talk last winter, I was so nervous. It seems very logical to me, so I've been trying to analyze the condition. I can tie up a lot of things that happened in my environment with present day occurrences. In other words, although the condition has actually disappeared, things currently remind me of it, and the reaction seems to be just the same as it would be had the condition remained present.

T: I'd like you to feel very free to speak of yourself. I think the more you feel free in this relationship, the more good may possibly come of it.

C: Well, I realize that. Dr. M., I think, was rather hesitant at first, because he didn't know how I would react, but I was in a way relieved when he told me that there might be come psychological things there. Although I guess a state of mind sometimes is pretty hard to change. Well, anyway, it goes back to home life—I guess many cases do. My parents never got along. I'm the oldest of six children, three brothers and two sisters. Well, it's hard to find a logical beginning, I guess, but the—I always say this, I uh, I really hated to go home when I left work—I hated to go home because I just didn't know what to expect. It was always arguing, and constant disagreements.

A patient's opening statement like this raises many questions. We will now attempt to answer three of these questions: What are some of the basic psychogenic factors in illness? What happens to these factors in the process of adjustment when the psychotherapy is successful? And finally, is there a method of approaching and aiding these people who come with illnesses which involve psychological problems?

The first question: *What are psychogenic factors?* It is necessary to remember that the physical and psychological factors in any personality difficulty overlap and oftentimes no clearcut line can be drawn between them. It is true, too, that many times the phychological factors have physical origin and when the physical causes are cleared up the psychological and personality problems disappear. Thus the most accurate kind of physical examination is of utmost importance. But there are many instances where the causes apparently are not physical, where the physical organs themselves appear not to be diseased, or where there are few or no positive findings from physical tests. Here then we seem to be in the area of psychogenic factors and it includes all those things which affect the personality physically but which are actually due, at least to some extent, to psychological causes.

How then might we clarify these psychogenic factors? In a recent study we found eight emotional factors that in a greater or lesser degree were characteristic of psychologically maladjusted persons. In the first place, these people were very unhappy and dissatisfied with themselves. In varying degrees, too, maladjusted people were very dependent and tended to lean on others to make decisions for them. Fear was a common factor: these people were usually surrounded by many fears. They were also very hostile to certain people, especially in the home, most often one or both parents, and they felt greately *rejected* by them. We noticed this in the statements of the soldier just quoted. These people usually were socially very inadequate. They did not mix well with others. Many were escapists often by phantasy day dreams of great achievement or by putting an exaggerated emphasis on some little accomplishment, for example, keeping their rooms in perfect order. But by far the highest factor was that of *confusion* or *conflict*. It was rated twice as high as any of the other factors. These people were always faced with a whole series of unrelated or unsolved problems about which they felt completely confused—"in a fog" as the soldier later described it. Because of this, they are never sure of anything, they are always in deep con-

flict, one force urges them to do a thing one way, another force pulls in the opposite direction. Notice how this is revealed in the following statement made by a patient:

"Well, here's something else that probably—uh, for one thing at times I seem to have a conflict within myself—uh, last night—well, I will start this way. I will decide within myself I am not very much of a man, and have everything all figured out what I should do—I decide I should get out and mix and start in, and start over and develop myself a little bit the way I should, and then I will run up against some discussion in psychology class, or, uh, like it was mentioned that some people have conflicts and they are not responsible for the way they are acting and they need help from others. And then I start wondering maybe I should take it up with someone and have them settle it. Uh—I seem to have a constant swaying of opinion along that line in different things. Wondering just where I stand and what I should do."

We have all had experience in trying to tell these people what to do and finding that they quickly grow hostile and very resistant or, on the other hand, become so very dependent that they've got to call up frequently on the phone, seek very special attention and constitute a definite annoyance. At any event, they do not carry out what they are told and are just as insecure and confused as they ever were. The following statement of a patient indicates this sort of reaction:

C: Uh, I'll try to explain what I think you mean. You mean someone. I'm afraid will just—is just gonna say, this is the way to do it, and go out and do it, and for heaven's sake do the way I tell you and that's the end of it, be a man—uh, well, that's the way I thought of things. (pause)

T: Yes, you don't want that, do you?

C: Uh, I'd like to have—uh—I really wouldn't like it. I'd rather—I'd like to have something I could build on—I mean a foundation, for one thing. (pause)

This is even more clearly indicated towards the end of the contacts when the patient has attained great insight about himself.

C: I don't believe every boy should be pampered, but if you put the pressure on someone who is in a bad way and make them think they're normal and then when they think that and they're abnormal something funny's going to happen because they're going to try to make rules that have no reality to them and it doesn't work. This talking it over is the cure. I—ah—you could have answered a lot of my questions and some psychologists still do, but the way I look at it, it won't work. It's no use bringing them up, the light will help but not solve it.

We saw the same thing also in the situation of the Army officer quoted in the beginning of this paper who, after he went to Captain A., felt worse and was only made hostile.

If, as these studies seem to show, the essence of psychological maladjustment is confusion and conflict, how is this to be explained? In the first place, confusion or conflict in the face of an unsolved problem is a deep fundamental reaction. One way of seeing this is to observe how a small child reacts to a simple problem. Extensive studies of small children have been made by Kurt Lewin. One of the things he found was that a small child, when he cannot solve a situation, grows physically tense, hyperactive and increasingly confused. The small child, in seeking a goal, invariably takes a simple direct path. For example, a child is standing on one side of a rather long and wide table that he cannot crawl under and a piece of candy is placed on the opposite side of the table. If the table is so wide that he cannot get the candy he will become frustrated and confused. It is a slow process by which the child learns that he must go away from the candy around the table, then back to it again to reach his goal. But as long as he keeps at the simple solution of stretching across the table he grows increasingly confused and irritated. This, I believe, is what happens too, in the case of a psychologically maladjusted adult. If we substitute for the candy, some intensely desired life goals, such as love, achievement, or social acceptance, and for the table, all those barriers, real or imagined, which keep the adult from obtaining the things he wants, we have an explanation why he is in conflict and confusion. The reason, too, why the maladjusted adult oftentimes never gets any better without help from a skilled and understanding person, is that the simple paths which he is taking to overcome these barriers will never really bring him to the things he wants. This only leaves him, like the small child, the more physically tense and mentally confused. Note the surprise shown by the patient after a period of counseling, at how he first looked upon his problems, as evidenced by the following statement:

"The only one strange thing I can't account for is that I never really thought of the thing as being any deeper than just a little one or two habits that I should correct. Whenever I found myself unwilling to be friendly with anyone else, I just—I thought, "Well, that's just a little habit that I'll have to correct."

It is interesting to note, too, that with the small child as with the maladjusted adult, pushing him to

a solution (for example, offering him another piece of candy if he gets that one), does not help him but only makes him more confused. Psychologically maladjusted adults are faced not with just one unsolved problem like the candy, but with a whole series of them. As a rule, they have very little achievement. Even when they are noticeably successful in certain things, these achievements seem to mean little in the face of their insecurity and other failures.

Our next question is: *What happens to these psychogenic factors when psychotherapy is successful?* Here again a reference to Lewin's studies with small children can, I believe, be of help to us. The way the small child finally reaches the candy is to withdraw from the striving to reach across the table, and to relax physically, so that he can get an over-all view of the whole table. The barrier is then seen more clearly, and with his over-all view he can see that the path to the candy is not directly across the table but temporarily in another direction. Seeing this he quickly goes around the table and snatches the candy. In much the same manner, it seems that in the process of successful psychotherapy, people are gradually able to take an over-all view of themselves and the barriers which keep them from reaching desired life goals. In the process of adjustment they slowly begin to see connections between their various problems as they trace them back to their fundamental sources, usually to unsatisfying values accepted from the home or from some influential person in the home. In the following response the patient summarizes the result of repeated insights by saying that he now has a map to show him where to go:

"That's another thing I've noticed, all these things are clear now even though they're still real problems. It's kinda like—I don't know, a person lost out on the highways. They can get out a road map and see where they are now, whereas before, I didn't have a road map."

This gaining an over-all view of one's self and the joining up of one's problems is called *insight*. Once this has been achieved, it is much easier for the patient to make choices of more adequate ways of reaching his life goals. He is no longer completely confused and frustrated. He sees his way clear and step by step he can begin to cope with the barriers and make his way around them. In other words, psychotherapy seems to be the same process, on a much larger scale, that the small child goes through when he learns how to get the candy. The patient gradually acquires a whole series of new perceptions about his problems and is thus able to plan and carry out much more adequate solutions. One of the recurring surprises of this type of psychotherapy is the remarkable solutions to what appear to be almost impossible problems which people will work out when they are aided in this way—solutions which the counselor himself would never have dared suggest or even thought of.

We come then to the final question: *What is the method by which this process of adjustment is brought about?* It is necessary to realize at this point a very significant difference between physical and phychological problems. When it is a case of physical illness the doctor knows far more about the patient's body than the patient himself and it is normal that the patient should depend on and trust the doctor's diagnosis. But when we are dealing with those aspects of the patient's illness that are psychological, then the patient himself knows more than anyone else what his feelings about his problems really are. Consequently, over a period of time, he, better than anyone, is apt to be able to figure out the best ways he can solve them. What he needs most often is not to be told what to do. Even if the advice is true, he is usually either made hostile by it and cannot carry it out, or he becomes all the more dependent on the adviser and his feeling of insecurity is increased. He needs, rather, the opportunity to think his problems through with someone's help so that he can see them more broadly, trace them to their fundamental sources and plan more satisfying solutions. This is where the title 'nondirective psychotherapy' gets its name. The nondirective interview offers the maladjusted patient a situation in which he can quietly survey his problems, in which he is encouraged to talk freely about them without feeling that he is being driven to solutions by the counselor. The counselor does not give solutions but his skill can set up a situation by which obstacles are removed so that the patient is able by degrees to arrive at his own solutions.

In addition a fearful and socially inadequate person needs the security, sympathy, and social experience which the counseling relationship offers. But it is a social experience which, rather than offering a refuge from the pressures of reality and thus increasing dependency, actually aids the patient in assuming more and more responsibility for himself.

However, the term 'nondirective' should not be interpreted to mean that there are no limitations. Quite the contrary is true. One of the ways that

the counseling relationship differs from the ordinary friendship is that the interview involves clearly defined limitations. A definite time should be set and ahered to. It may be an hour, a half-hour, or even fifteen minutes, according to the time available. Further, it is gradually made clear to the patient that the counselor is not going to answer all his questions and tell him what to do, but rather that it is a situation in which he can talk freely about himself and with the counselor's aid work out his own solutions. It is interesting to observe the change of attitude that often takes place when the patient learns that what he gets from the interviews depends in a large measure on himself. Actually he is then apt to be far more stern and demanding with himself than any counselor would likely be.

We have attempted to condense the method of setting up this kind of psychotherapeutic relationship into eight interrelated steps. The first and by far the most important is this: *The patient is encouraged to express his feelings freely.* It is not clearly known why the opportunity to talk freely is so very helpful to the patient, but whatever the reasons it seems that an emotionally confused person can gain no real insight into himself and can make no steps toward solving his problems until he has had repeated opportunities to verbalize his emotions and conflicts. Once the patient realizes he is allowed to talk freely and will be listened to sympathetically, he literally jumps at the chance. As far as can be known now, it seems unwise to interrupt the flow of this release. When the patient pauses for want of breath, or to regain composure, the counselor should not quickly respond, but after a pause should quietly clarify the feelings expressed, and the patient, in the first interviews needing more releases, will quickly take up where he left off.

The very small verbal part the counselor plays in this release might mislead him into thinking that he is not doing enough for the patient. This would be a grave mistake. The counselor can do nothing more productive of therapy in the early interviews than to sit quietly and listen with sympathy and interest during these long releases. The more difficult the counseling case, the more necessary release appars to be. The counselor may begin to grow weary during these long releases which appear each time to go over the same ground, and to feel that the interviews are getting nowhere. Nothing could be farther from the truth. Careful analysis of phonographic recordings of many interviews show that definite progress often follows soon after these releases. All the reasons why this release is so essential are not known, but it appears to be a prerequisite for most insight and growth through counseling. If he receives this release and is not made defensive or insecure, the patient will be more than satisfied with the first interview, and will very willingly want to return. One very important aspect is that it gives the patient a physical activity which offers some outlet for the high degree of body tension that seems to accompany most cases of maladjustment. This might explain why the patient is often physically so much improved, even after just one such releasing interview.

Step number two: *The patient is left with the responsibility of talking about anything he wishes.* This obviously follows from step number one and allows the patient to survey all the possible factors that might be involved in his problems.

Step number three: *When the patient expresses hostile, negative, or guilt feelings as well as socially approved ones, he is made to feel that he need not be at all self-conscious about these kinds of releases.* This is very important. Most people like to present the best picture of themselves and their families to others. Consequently, patients are often very much embarrassed the first few times they speak hostilely of the wife or the family, or reveal some weakness in themselves. They need to be put at ease by a quiet response that assures them it is often very helpful to speak of these kinds of feelings if they wish. It is interesting to note too, that after they have released strong feelings about someone in the interview, their attitudes often become much more postive and they get along better with this same person.

Step number four: *Besides being encouraged to express his emotions freely, the patient is aided to see the fundamental drives, needs, and values which these detailed statements often contain.* This is done by the counselor's responding to the emotions contained in the patient's releases. He does this by cutting through the content and holding up the emotions of fear, or hostility, or desire, which a long series of detailed statements often expresses. Usually the response is phrased in a brief statement somewhat as follows:

"You fear your husband will leave you."

"You are angry with your daughter for marrying and leaving you alone."

"You would like to have more friends and be able to mix with others."

"Your wife is very cold towards you."

Step number five: *The patient's desire for independence is accepted, and he is aided to see that this relationship will not destroy but rather will further this urge.* It is this fundamental desire for independence that seems to be the basis of most of the resistance which patients show when they are told what to do. They are fearful that whatever little self-determination they have will be taken from them. They know, too, that all the "if I were you" kind of advice which they received repeatedly from their well-intentioned friends, has not helped them. What they really want is a chance to work out their own problems with an understanding and accepting person.

Step number six: *Towards the end of the interview the patient is assured that his talking so freely has been worthwhile and that he has not been talking foolishly.* Because this relationship seems at first rather strange and because patients often have never talked freely about personal matters to anyone before, they are apt to feel quite insecure and a little ridiculous. Oftentimes, they will end a long release with the phrase: "I suppose this sounds silly to you, my talking like this." They need to be assured that this kind of talking, far from being foolish or a waste of the counselor's time, often can be most constructive and helpful.

Step number seven: *A definite time limit of an hour, a half-hour, or even fifteen minutes (depending upon the time available) is suggested as being more helpful to the patient if he uses it in successive interviews than his talking for a longer period at one time.* The patient usually is not offended by this suggestion. On the contrary, it helps him to relax since he too has other obligations and he feels more secure in having a definite time to use repeatedly. It is often very helpful, too, if the patient is told that he can use these interviews as long as he feels they are of value to him. One might think that this sort of statement might cause some patients to keep coming forever. Actually, with perhaps some very rare execptions, this does not seem to be true. The patient himself has a fundamental urge to psychological independence and he will most often bring the interviews to a close himself when he feels they are no longer needful. One might think too that the process of adjustment would always be very long and involved, necessitating interviews over a period of two or three years. While this may be true in some cases, one is often surprised to see how many people receive noticeable help, are physically better, and psychologically happier after as few as five interviews, or even less.

The final step: *A definite time is offered the patient for the next interview if he wishes to use it.* This is important for a number of reasons. It definitely establishes the fact that the counselor wants to see the patient again. Otherwise, the patient in his embarrassment and confusion is apt to not ask for a definite time himself but to end the interview with, "Well, I'll drop around and see you sometime when I'm feeling low again." Also, the setting of a definite time gives a fixed and stable basis to the relationship and both counselor and patient can feel that something permanent has been established, that it is no longer a casual contact.

Corresponding to the steps by which the counselor sets up the psychotherapeutic relationship, the patient's attitudes also undergo a gradual development. We have attempted to divide this change into six phases. In the first place, the patient usually does not accept the psychogenic factors and will not readily talk about anything but his physical ills.

Second, the patient has his own physical diagnosis of himself and feels that there is nothing else wrong.

Third, because he is encouraged to talk freely and is not made defensive, he gradually begins to express his own ideas of his problem.

Fourth, as he talks the content of the patient's releases ordinarily becomes broader and he begins to introduce ideas about his home, family, work, personality needs, and other life situations.

Fifth, the patient slowly begins to accept some or all of these factors as part of his problem and sees them as, at least, somewhat serious.

And finally, the patient is left to decide whether or not he wants to come for more interviews. The general opinion now is that the patient must have some urge to work out his problems before this kind of psychotherapy is possible.

The reader may feel now or may later find that it is not possible to give this kind of help to everyone who comes and seems in need of it. But even when a systematic psychotherapy is not possible, this point of view may still prove to have definite value. Perhaps this was one of the secrets of the old successful general practitioner. People in periods of greater or lesser confusion do need someone to talk to. They spontaneously seek out that understanding friend who lets them release their feelings without criticism or censure. The fact that he accepts them, listens to them, but does not try to make them follow his ideas, helps them but still leaves them with a healthy sense of freedom to make their own judgments. In

the same way, anyone who comes to the physician would seem to be helped by an awareness of these factors. Further, these persons cannot always be referred elsewhere. Even if there are competent people available, once the patient has the freedom and confidence to speak to one person, he does not often wish to go to another. Often too, he has made the rounds to quite a number of doctors who have not been able to help him. He is apt by this time to be so discouraged that he will not go elsewhere. Consequently, the development of simpler techniques of psychotherapy that may be used more generally would seem to be of great value. We hope this paper may have made some small contribution to this development.

MIGRAINE

Many of the women I see every week complaining of such things as fatigue, indigestion, dizziness, nausea, spells of vomiting and an inability to stand up to any strain have the habit of forgetting to tell their physicians that their upsets are commonly preceded by a headache. As a result, the diagnosis of migraine is usually missed, and this is a tragedy because if it were made it would throw great light on all of the woman's problems.

In most cases the physicians consulted could have made the diagnosis if they had only been trained to recognize the attractive, migrainous type of woman with her expressive eyes and mobile features, and her quickness of thought and movement. Then they would have drawn out the story of the headaches with the typical temperament: the great tendency to tenseness and fatigue, and the hypersensitiveness to light and sounds and smells.

I have rarely seen such a migrainous woman permanently helped by any operation on her digestive tract, but I have seen many of them almost cured through being taught to live with their handicap and to avoid fatigue, tension, excitement, worry and annoyance.—Walter C. Alvarez, M. D., in J. Arkansas Medical Society.

CULTURAL INTERESTS NEGLECTED

Perhaps in the long run the defect in wartime education most to be regretted will be that arising from the lack of any leisure. The student's life was immersed in the acquisition of medical knowledge and the overcoming of obstacles to that end; there was little time for the pursuit of those cultural interests that make a man something more than an efficient technician. This tendency has been apparent in the medical profession for the last twenty-five years.

Gray's Anatomy conveys no philosophy of life except perhaps the discipline of minute observation; and however necessary this may be to the medical student he will find that his patients will expect him to be not only acquainted with the innervation of the tongue but also able to put that organ to such good use that he may be regarded as a man of uncommon wisdom.—British Medical Journal.

MEDICAL CARE OF VETERANS*

By EDMUND EASTWOOD, M. D.
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It is a great privilege to address any group that is interested in and can contribute to the medical care of veterans. I would like to present to you some of the high lights of our medical program, and our need for the support and active cooperation of the civilian doctor in solving our numerous medical problems.

When General Hawley took over the Medical Service of the Veterans Administration last August, he established as his longrange objective, "a medical service second to none."

An easy thing to say, "a medical service second to none", but what does it mean? It means a many-faceted goal difficult to obtain.

In terms of medicine and surgery, it means that in all of the special branches of medicine and surgery the Veterans Administration will provide a service that meets the highest standards set for each.

In terms of physical equipment it means hospital beds, outpatient clinics, and modern, up-to-date scientific equipment.

In terms of personnel, it means that adequate staffs of qualified personnel in all of the professional, subprofessional and nonprofessional categories of hospital personnel will be in those hospitals and outpatient clinics to serve the veteran.

In terms of professional cooperation it means that the best specialists, physicians and dentists in civilian practice in the country will be serving the Veterans Administration on a fee-for-service, part time, or consultant basis.

In terms of education it means that doctors will be training for specialty board examinations in residencies established at VA Hospitals, while also giving care to veterans.

In terms of the Congress it means that our legislators will be satisfied that the funds they have appropriated for the care and treatment of eligible veterans are being wisely administered for the benefit of veterans.

In terms of the general public, it means that those who have loved ones eligible for medical or

*Presented before the 79th Annual Meeting of the West Virginia State Medical Association at Huntington, May 14, 1946.

hospital care or treatment can be sure the veterans are getting that care or treatment.

In terms of sick or disabled veterans it means the ultimate in physical or mental rehabilitation that is possible in each individual case.

You have heard the goals. Now let us see how far along the road toward these goals the Veterans Administration has come.

Although the broad, overall objective for the general medical, the general surgical, the tuberculous and the neuropsychiatric services is the same, the procedure for reaching that goal varies with each service. However, the general pattern of procedure is sufficiently similar to permit the citing of one, in order to give you a glimpse of them all.

Let us take a look, for instance, at the general surgical service. The goal is a surgical service that in every way meets the standard for general surgery that has been set by the American College of Surgeons.

It is inconceivable that General Hawley could accomplish this alone. Therefore, he has appointed a Board of Consultants, composed of a representative from each of the twelve surgical specialties, to assist him.

They, in turn, have appointed a representative in each of the twelve surgical specialties to advise and work with the Branch Medical Directors in the Veterans Administration Branch Offices. These Branch Office Consultant groups are responsible for surveying and evaluating the surgical service in each VA Hospital in the Branch Office area, and for making such changes as may be required to bring the surgical service in these hospitals up to the standard.

It should be remembered that the problem is twofold, because certain VA Hospitals have, or will have, residency training programs, while others, too far removed from Medical Centers to make cooperation feasible, will have no residency program.

At the present time, all of the Branch Office Surgical Consultants have been appointed, and are beginning to survey the hospitals within their areas. The hospitals with residency programs, either under way, or in the formative stage, will be the last to be surveyed as the responsibility for the standard of residency is now resting with the medical schools that are engaged in establishing teaching programs at our hospitals.

It is self evident, of course, that no hospital program can succeed without hospital beds.

In December, 1941, the Veterans Administration was operating ninety-two hospitals in three main clinical types, of which fifty were general medical and surgical, thirty neuropsychiatric, and twelve tuberculosis, comprising a total of 72,000 beds. In addition, there were twelve VA Homes with approximately 19,000 beds for the use of ex-service men and women permanently disabled to a degree which prevented them from following any gainful occupation, yet whose disabilities had reached a static condition not requiring actual hospital care.

As the war progressed, rapid and heavy demands for more hospital beds had to be met. The Veterans Administration attempted to solve the immediate problem by installing in existing hospitals emergency or expansion beds, over and above normal standard capacity. By V-J Day 11,000 expansion beds had been added, increasing the capacity to 83,000 beds. Use of expansion beds will be discontinued when new units to existing hospitals or new hospitals with sufficient capacity to care for the patient load, now provided for under the authorized emergency bed allocation, can be acquired.

Hospital expansion plans call for the construction of new hospitals and the transfer of others from the Army and Navy. Under the present building program, the Veterans Administration will add seventy-four permanent hospitals of all types, with a bed capacity of 52,110 beds. As of April 4, 1946, we had 101 hospitals with a total of 85,302 authorized beds.

In addition to the construction and acquisition of new VA Hospitals, contracts are being let for the use of beds in civilian hospitals and other federal hospitals when these are surplus, over and above the needs of the respective community or service, as it is not the purpose of the Veterans Administration to hamper civilian hospitalization. We hope soon to have 20,000 contractural civilian hospital beds, although as of February 26, 1946, only approximately 9,000 such beds were under contract. The exact total beds that ultimately will be available in civilian hospitals is not known. At the present time hospital associations in Kansas, Michigan, Oregon and North Carolina have signed contracts and thirty-six other states are negotiating, either directly or indirectly, for participation in this program.

The goal for our outpatient service does not differ in the standard of treatment from that of the hospitals. But the problem is complicated because of the tremendous number of physical or mental examinations which must be given on an outpatient

basis. Examinations are required to determine the need for medical treatment and care, for the adjudication of claims, to determine need for hospitalization, and, to provide records from which percentage of disability may be evaluated for compensation and pension purposes. It is estimated that during 1947 more than two million veterans will require complete physical or mental examinations.

With a potential veteran population of more than fifteen million from World War II, it can readily be seen that there will never be enough doctors in the Veterans Administration to give the necessary examinations. Nor will there be enough VA outpatient clinics. General Hawley has appealed to civilian doctors for help in solving this major problem. He has received magnificent response to his appeal, and several state plans for outpatient examinations and treatment have been worked out. The Kansas State Plan is a notable example of this cooperation, and will work in the following manner:

The Kansas State Medical Society has submitted a list of its qualified members who desire to render service to the VA in accordance with a predetermined schedule of fees. From this list, those vouched for by the Society are appointed as VA physicians on a fee basis, and their work for the VA will be supervised by the Society in the various zones throughout the state. Medical service will be given to the veteran by the nearest qualified physician under authority granted by the VA representative designated for that purpose, and fees for treatments will be paid by our agency to the physician who renders the service. For convenience in operating this plan, the designated VA representative is located adjacent to the office of the Kansas State Medical Society in Topeka.*

One of General Bradley's and General Hawley's first objectives has been attained: the passage of legislation to enable them to establish educational and professional attractions for the finest calibre of hospital personnel, and permit them to employ doctors, dentists and nurses without reference to the rules and regulations of the United States Civil Service Commission.

Public Law No. 293, 79th Congress, created a Department of Medicine and Surgery in the Veterans Administration, effective January 3, 1946. Since then, educational programs in the form of residencies have been established for doctors, and standards, independent of the Civil Service Commission, have been set for personnel in what are called the Auxiliary Services, that is, dietetics, social service, etc.

Long range estimates of personnel needs are, to mention a few, 7,000 full time VA physicians, 750 dentists and 30,000 nurses. Although still a long way from meeting these goals, the VA has added hundreds of full time doctors to its staff since the first of the year. A net gain of about 100 nurses a week is helping to alleviate our need for nurses, and the Dental Service reports more applications on hand than it will have positions to fill in the next eighteen months.

When General Hawley said, "Without the assistance of class A medical schools, it would be impossible for the Veterans Administration to operate its present hospitals at a satisfactory standard", he made reference to the residency program in process of establishment at Veterans Administration Hospitals that are located near medical schools or teaching centers, and to the selection of physicians who are teachers in class A medical schools or outstanding specialists, to act as consultants on a part time, or fee basis.

The ultimate goal of these programs is 1,000 full time resident physicians and 500 part time attending consultants.

On April 18, 1946, sixty-three out of the seventy-seven class A medical schools in the United States were cooperating in the residency program, 224 resident physicians were on full time duty in twelve Veterans Administration Hospitals, and 535 consultants and attending specialists were serving seventeen Veterans Administration Hospitals. For detailed information about the residency or consultant programs, doctors should consult the Dean of any class A medical school.

One of the most interesting and important phases of the General Hawley program is the medical rehabilitation of patients in Veterans Administration Hospitals. The goal for this service is the ultimate physical and mental rehabilitation possible in each individual case. It is an interesting challenge because of the necessity of meeting the special problems involved in the rehabilitation of the tuberculous patient, the neuropsychiatric patient, the amputee or otherwise disabled, and the paraplegic, or spinal cord cases.

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*Ed.: The program of the West Virginia State Medical Association for medical care of veterans was approved by the Veterans Administration April 27, 1946, effective immediately.

Because there had been no comparable program in the Veterans Administration, a completely new section or service had to be created. Today, we have come a long way down the road. The Medical Rehabilitation Service has been established. Field personnel is just beginning to be appointed, but the Medical Rehabilitation Service already has become an integral part of the medical program.

Of major importance to the whole program of the Veterans Administration is General Bradley's decentralization plan for streamlining the operations of all of th efunctions of the agency. Where previously all activities were administered from Washington, under decentralization they will be administered on an area basis from thirteen Branches of Central Office, with headquarters in each of what are roughly, the thirteen Civil Service Districts throughout the country.

There has not been sufficient time, as yet, to determine the effectiveness of decentralization, but the thirteen Veterans Administration Branch Offices are open, having begun to function officially as of April 1, 1946.

General Hawley is sincere in his praise of the American doctor, both individually and collectively. He has repeatedly said, "There is no substitute for a good doctor." And he means it.

In an address before the House of Delegates of the American Medical Association, General Hawley recognized and paid tribute to the medical teaching centers of this country. He recognized them as the source from which the American doctor has drawn, and is drawing, his medical knowledge and skill, knowledge and skill so gloriously reflected in the saving of a higher percentage of wounded during World War II than ever has been possible in the whole history of previous warfare.

Today, General Hawley is leaning heavily upon the qualified American doctor engaged in civilian practice. He needs his help in giving outpatient treatment. He is dependent upon the civilian physician for assistance in Veterans Administration Hospitals. He needs the help of the organized state medical societies in encouraging communities in which there are unused hospital beds to make these beds available to the Veterans Administration. In this, he needs *your* help in providing for veterans "a medical service second to none".

We don't love people so much for the good they have done us as for the good we have done them. —Sterne.

TUBERCULOSIS PROBLEMS IN WEST VIRGINIA*

By E. P. WELLS, Executive Secretary,
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Tuberculosis took the lives of 692 people in West Virginia last year. Fifty-three per cent were persons between 15 and 45 years of age. In this age group (with the exception of accidental deaths) tuberculosis took the greatest toll of lives. Of the 692 deaths, only 33 occurred under 15 years of age. There were 1,830 new cases reported last year. According to tested estimate, the formula of nine active cases for each annual death, there are, then, 6,228 active cases of tuberculosis in the state today.

The tuberculosis problem is of utmost major importance. Indication of the size of the problem is presented by figures compiled by the West Virginia State Department of Health. Over a six-year period, 1940-1945 inclusive, their figures show reported tuberculosis to be:

1940	1941	1942	1943	1944	1945	Total
1,682	1,893	1,602	1,643	1,680	1,830	10,330

The tuberculosis deaths for the same period were:

865	832	765	769	754	692	4,677

The latest estimate of the number of active cases per death in a community is nine cases.[1] Therefore, the actual record of cases known against the probabilities would be as follows:

	1940	1941	1942	1943	1944	1945
Probabilities	7,885	7,488	6,885	6,921	6,786	6,228
Actually Reported	1,682	1,893	1,602	1,643	1,680	1,830
Unknown	6,203	5,595	5,283	5,278	5,106	4,398

The number of tuberculosis deaths which have been undiscovered or unreported prior to issuance of a death certificate is alarmingly great. In 1944 and 1945, receipt of death certificates constituted the first record of tuberculosis in 773 (55%) of the 1,407 deaths reported in these years.

CASE FINDING BRINGS RESULTS

The experience of two counties in connection with case-finding is worthy of notice. Up to and including part of 1941, the tuberculosis association in Fayette County had not carried out an active case-finding program. During this year the asso-

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*Submitted to and approved by the West Virginia Tuberculosis and Health Association at the annual meeting at Clarksburg, September 20, 1946.

[1]National Tuberculosis Association.

ciation was reorganized, physicians interested, and a tuberculosis field worker placed in charge of the work. Regular x-ray clinics were instituted. The average number of new cases reported for the five years following 1941 was 122.25 cases against 58.60 for the five years preceding 1941.[2]

Although the city and county health departments and the tuberculosis association in Kanawha County had been active for many years, a regular diagnostic clinic service was not instituted until 1942. The average number of cases reported in Kanawha County for this year and the subsequent three years (1942-1945) was 267.50 against 144.25 for the four previous years.[2]

A comparison of the most recent provisional figures available,[2] those of 1945, show the following relationship between West Virginia and the United States:

	New Cases Reported[3]	Number of Deaths	Death Rate
West Virginia	1,830	692	40.2
United States	117,400	52,398	39.7

Of the 48 states, only 17 have higher rates than West Virginia and 9 of these are southern states with large Negro population and 4 are resort states where many patients go seeking a "magic" cure or last hope, and die in residence. Some of these "cure seekers" may have been former West Virginians.

The downward trend of recent years was reversed during the first three months of 1946. Earliest provisional figures[4] show a four point rise in the tuberculosis death rate over a comparable period of 1945. This may be mere circumstance and the process will again reverse itself or it may be indicative of trouble to come as a result of the accumulation of wartime excesses and fatigue.

BED-CAPACITY INADEQUATE

At present, West Virginia has 1,355 sanatorium beds. Of these, 1,230 are for white patients and 125 for Negroes. They are: Pinecrest 665, Hopemont 475, Denmar 125, Ohio County 38, and Hill Crest[5] 52.

The present accepted minimum standard[6] is 2.5 beds per annual death. By this measure, to meet minimum requirements, West Virginia should have 1,727 available beds. By this standard, the state has 372 fewer beds than are required to meet basic needs. Further, 300 beds are maintained at Hopemont which are not suited for the care and treatment of patients and are also located in buildings inadequately protected from fire. Thus, in reality, the state has 1,055 properly established beds or 1.5 beds per annual death.

Two of the three state sanatoria are located in areas remote from population centers and without satisfactory travel facilities. Hopemont is situated in the mountainous section of northeastern West Virginia off the main travel routes, and 30 miles from Morgantown, the nearest population and recreational center. Denmar Sanatorium (Negroes) is located in Pocahontas County far from the centers of Negro population. Fayette, Kanawha and McDowell Counties lead in number of admissions to Denmar and their county seats are respectively 105, 148 and 151 miles distant. It is well off the main highway and is served by no public carrier.

No immediate medical consultation service is available locally to either of these two institutions although Hopemont does draw upon the medical faculty of the medical school at Morgantown. No nearby labor pools exist from which to draw the necessary employees for adequate maintenance. All sanatoria are dependent upon prison labor.

Pinecrest Sanatorium is in Beckley and is well located with an excellent physical plant.

NON-MEDICAL DISCHARGES

In all state sanatoria there exists a dangerous and serious problem. This is the large number of tuberculosis patients who leave sanatoria against medical advice, only to return to their homes and communities still sick and still infectious. In 1944, the following nonmedical discharges were recorded for the state sanatoria:

Hospital[7]	Total Number Discharges	Discharges Against Advice	Percent of Total Discharges
Denmar	74	16	22
Hopemont	406	119	29
Pinecrest	652	349	54
	1,132	484	42.8

The same general conditions are prevailing at the present time, although the war has ended. The first 6 months of 1946 show a total of 511 live discharges for the three state sanatoria, 223 being

[2]Tuberculosis Mortality and Morbidity Statistics, 1940-1945.
[2]Statistical Service, National Tuberculosis Association.
[3]N. T. A. Special effort was made to obtain the number of new cases reported exclusive of "primary" or "childhood type" cases which are reportable in some states.
[4]Statistical Service, N. T. A.
[5]Accepts children only.
[6]National Tuberculosis Association.
[7]A Survey of Tuberculosis Institutions of West Virginia, U. S. P. H. S.

against medical advice. There were 107 deaths during the period.

Comment should also be made on the large number of tuberculosis patients in the state who refuse sanatorium treatment. Although there is no accurate record, every tuberculosis, public health and social worker knows the number to be dangerously large. It is known that 52.2 per cent of reported tuberculosis deaths in the state occur outside hospitals.[8] This will indicate the seriousness of the problem.

All these cases, those who died outside hospitals and those who left sanatoria against medical advice and who didn't die, as well as those refusing hospitalization, were largely highly infectious and a menace to both their families and the general population.

PER CAPITA EXPENDITURES

Sanatoria in West Virginia estimate the following per capita per day expenditure for 1944-1945: Denmar $3.47; Hopemont $2.60; and Pinecrest $2.01. Neighboring states run close to these figures, but are having the same inherent problems as West Virginia. The data from other states is not up-to-date, although latest figures were requested, and is as follows: Maryland $2.93 (year ending June, 1946), North Carolina $2.00 (1944), Pennsylvania $2.50 (calendar year 1945), and Virginia $2.47 (1944). The veterans' tuberculosis hospitals, 14 in number, averaged $7.31 for April of 1946.

APPROPRIATIONS

Appropriated to the West Virginia Tuberculosis and Health Association, through the State Board of Control, is an annual sum of $10,000 used to develop and maintain field clinic and nursing services. The moneys of the state and local associations, expended in most part on such activities as aid to patients, case-finding, nursing service, diagnostic clinics and health education, averaged $97,599.56 for the three years 1944, 1945, and 1946.

Estimated state expenditures for tuberculosis for the years mentioned above are as follows:

	1944-1945	1945-1946	1946-1947
Appropriation TB Assn.	$ 10,000	$ 10,000	$ 10,000
Appropriation Sanatoria[9]	580,500	658,500	658,500
Appropriation for Indigents	360,000	325,000	325,000
	$950,500	$993,500	$993,500

Thus, roughly, and not including aid to dependents through public relief, state expenditures for tuberculosis for the current year of the biennium amount to $993,500 or 57 cents per capita as based on the estimated population figures of 1943.

Federal funds, through the United States Public Health Service, were received to operate the Bureau of Tuberculosis Control, state health department. These amounted to $8,308.39 for 1944, $12,634.00 for 1945 and $65,276.21 for 1946. This activity is wholly dependent upon federal funds.

NEGRO DEATH RATE HIGH

Negroes comprise 6.2 per cent of the population of the state. The death rate for this group, as is true everywhere, is considerably higher than that of the white population. In 1944, it was estimated to be approximately 120 per 100,000 people.[10] Negroes, comprising this percentage of the population, suffered 17 per cent of the total deaths in this year and had allotted to them only 9 per cent of the sanatorium beds.[10] Thus the ratio of beds per death for Negroes was one to one.

ADDITIONAL HEALTH OFFICERS NEEDED

A community of 50,000 persons should have one full-time professionally trained and experienced medical health officer, a full-time public health or sanitary engineer, a sanitarian of nonprofessional grade, ten public health nurses (one of supervising grade), and three clerical workers.[11] This is the currently accepted standard for working efficiency for such units.

The 1945 report of the Bureau of County Health Work, state health department,[12] lists 44 of West Virginia's 55 counties as having health services under supervision of the state health department. There are 16 full-time county health departments, 5 full-time district health departments serving 20 counties, and 8 counties with full-time nursing service only. Eleven counties have no health service rendered by full-time personnel. At the time of this study, 3 units were operating without a director and 4 were directed by part-time officers.

Of the 18 health officers listed for West Virginia, only 6 had adequate public health training. Personnel comprising the 29 units, or serving the 44 counties, included 13 health officers, 34 sanitarians, 66 nurses, 41 clerks and 38 others.

Thus, roughly, the counties which have the above personnel, in order to maintain adequate

[8] A Study of Tuberculosis Institutions of West Virginia, USPHS.

[9] Less amounts budgeted as collections at sanatoria.

[10] Survey of Tuberculosis Institutions of West Virginia, USPHS.

services and produce results, should have, according to accepted standards, 30 health officers, 30 sanitary engineers, 30 sanitarians, 300 nurses and 90 clerical workers. The eleven counties having no services under health department supervision should have 4 health officers, 4 sanitary engineers, 4 sanitarians, 40 nurses and 12 clerical workers.[13]

The smallness in size and population of many West Virginia counties precludes the establishment of individual effective health departments. Recognizing the logic of this, the Committee on Local Health Units, American Public Health Association, in conjunction with the state health commissioner, has agreed upon the efficacy of 25 health units for the state, completely covering the territory and serving the entire population. No units have under 50,000 population and only two exceed 100,000. Included are 9 single county units, 7 bicounty units, 4 tri-county units and 5 four-county units. This program, if carried through, would provide the territory with 25 full-time health officers, 71 sanitary engineers and sanitarians, 382 public health nurses and 124 clerks.

THE 1947 BUDGET

The total amount budgeted for the official public health program in the state and counties for the 1947 fiscal period, as presented in the 1947 budget submitted by the state health department, is $1,648,874.90. This is broken down into $606,450 from state funds, $414,193 from counties and $628,231.90 from outside sources, mainly the federal government. Thus, according to the 1943 census, the state appropriated a per capita of 35 cents for its own health program.

Of the total budgeted for county units, the counties themselves are providing $414,193, or 25 per cent. Pendleton, Taylor and Wayne Counties are not included in these figures. Thus, 52 counties contribute 25 per cent of the total or a per capita of 24 cents to their own health program.

It is interesting to note that the $65,276.21, which is allotted to maintain the Bureau of Tuberculosis Control, is completely made up of federal funds. As the federal government considers treatment, hospitalization and relief of the tuberculous as a state responsibility, funds appropriated by the state for these purposes cannot be used on a matching basis. For this reason, if state financial support for its own bureau of tuberculosis control is not soon forthcoming, federal funds may be withdrawn.

State law sets three-tenths of a mill as the maximum which a county or municipal authority may levy for purposes of providing full-time health services. According to the 1941 assessed valuations, this would provide approximately $600,000 in local money for local health services. Multi-county action would increase this sum, since the law provides that two-fifths of the amount contributed by cooperating counties may be added by the state department of health.[14]

SERVICES CURTAILED

Currently, the state health department is understaffed, under-budgeted and has an inadequate number of services. The Bureau of Tuberculosis Control and the Division of Communicable Disease Control share a director. Also, so do the Bureaus of Maternal and Child Hygiene and County Health Work. The Bureau of Industrial Hygiene has no physician in charge and the Division of Venereal Disease Control is directed by a layman. The Bureau of Public Health Education has been greatly curtailed. Continued difficulty in obtaining and keeping personnel indicates existence of basic faults.

The $325,000 Hospitalization for Needy Tubercular Fund, appropriated by the legislature for each year of the biennium, is administered through the Bureau of Tuberculosis Control. This fund is for the purpose of enabling indigent tuberculosis patients to meet the one dollar per day charge for sanatorium maintenance. At present this fund is allocated as follows:

To provide one dollar per day for indigent patients	$272,000
To the Department of Public Assistance for investigations	5,000
Subsidization of Hygienic Laboratory for tuberculosis work	3,000
Private physicians' fees for pneumothorax treatments	18,000
Surgery for indigent patients	27,000
	$325,000

Actually, then, this fund of $272,000 is making possible maintenance in sanatoria for 745 patients at one dollar per diem. The master file of reported tuberculosis cases at the Bureau of Tuberculosis Control shows 4,384 active cases as of April 15 this

[11]Local Health Units for the Nation, Commonwealth Fund.
[12]Annual Report of the W. Va. State Health Department.
[13]Some of these counties do employ part-time practicing physicians and a few nurses for local program work.

year.[15] On the basis of the formula of nine active cases per death, we can be assured that this is low.

SUPERVISION AND ADMINISTRATION

Sanatoria are operated under the direction and supervision of the West Virginia State Board of Control. The health department administers the appropriation for the indigent tuberculous. The Department of Public Assistance makes the investigation of each applying patient. The routine is as follows: A patient is found by the health department, a tuberculosis association or a private physician. An application is completed and the case referred to the local DPA concerned. An investigator of the DPA visits the patient and family, investigates resources and lists their expenses. This with the application is forwarded to the Bureau of Tuberculois Control where it is reviewed by a social worker. If approved for assistance, the application is then forwarded to the sanatorium. Notification is then sent from the sanatorium to the patient that the application has been accepted and includes instructions as to when admittance can take place.

Lengthy delays are frequent. The Bureau of Tuberculosis Control, further, as has been pointed out, pays the DPA $5,000 to make the investigations.

LOCAL ASSOCIATIONS

An integral and important part of the whole tuberculosis picture in West Virginia are the state and local tuberculosis associations. For these, too, there is much to be considered.

A definition applicable to voluntary, nonofficial organizations of this kind is: A tuberculosis association is primarily an educational institution whose duty and object is to instruct the public in the nature of tuberculosis as a disease, its prevention, diagnosis and treatment; to inform, by educational media and otherwise, the general lay public and proper governing officials of needed facilities for diagnosis and treatment and to work for the realization of these needs; to study continually and work toward the improvement of public agencies established to provide assistance to the tuberculous, and where public supported facilities are not sufficiently well established or adequately financed, to supplement the efforts of the official agencies by maintaining, on a demonstration basis, supportive and supplementary program activities until such time as the official agency may satisfactorily carry out the activity.

Such supportive and supplementary activities considered as desirable are: field nursing service, diagnostic clinics, mass x-ray studies, rehabilitation and social service.

It is evident that few associations militantly back their health officer to assist him in acquiring his needs or are willing to turn over to the official agency any program activity when the health department is in a position to administer and maintain it.

At present few associations in West Virginia approximate the program as defined in the foregoing. Five counties have no local association or responsibility. Seven counties have both adequate organizations and balanced program activities. Between these two categories exist 43 counties with organizations ranging from mere seal sale committees to striving promising associations.

A recent effort has been inaugurated to perfect local organization and program. This effort has already realized some success. District associations, where neighboring counties have homogeneous populations, good travel routes and similar industry, are being considered. The object is to place a trained qualified worker in each population center, whether single county or district unit, where reasonable success can be assured.

CHRISTMAS SEALS

Christmas Seal returns have steadily increased since the end of the recent depression. The last sale approximated $118,000, of which nearly 75% remained in local areas for program work. The per capita contribution was 6.7 cents.

ORGANIZATION IMMEDIATE NEED

One of the gravest problems is that of the small county with little population, which, after financing a clinic—or possibly two—still has a problem, but exhausted resources. There are at present 31 such counties, but 13 of these can be eliminated by the proposed districting and pooling of resources.

Organization seems to be the outstanding immediate need. Increased resources and improved program will logically follow.

These, then, are the more important problems and the various factors with which we must contend. Definite immediate action and long range planning are needed to correct many existing faults and weaknesses and to improve services generally to the tuberculous of West Virginia.

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[14]Local Health Units for the Nation, Commonwealth Fund.

[15]Minimal cases carried back to 1943 and moderately and far advanced cases back to 1942. Last reported active.

CARE OF THE MENTALLY ILL AT WESTON STATE HOSPITAL

By JOSEPH L. KNAPP, M. D., Superintendent
Weston, West Virginia

In speaking of the present conditions at Weston State Hospital and its future, it is well to pause for a moment and reflect on the history of the hospital. The beginning of it dates back even before the beginning of the state itself.

The Weston State Hospital was originally started by the State of Virginia in 1859 and named "The Lunatic Asylum West of the Allegheny Mountains." From the records, it would appear that it had a stormy birth and beginning. There were numerous delays in construction, and notations in the early records show that blankets, sheets and supplies were seized by raiding Union and Confederate troops. After the Civil War, the name was changed to the West Virginia Hospital for the Insane.

Dr. R. Hills, Superintendent, with his wife, who had been appointed matron, and assistants, arrived October 22, 1864. The total bed capacity at that time was thirty-five. It was not until some eight years later that the original building was finally completed, with a bed capacity of two hundred and fifty. It has been stated that part of the hospital, which is still in use, is one of the few tangible remains of the Virginia Debt. One of the wings of the hospital is the largest hand-cut stone building in the United States.

At the time of its construction and for many years afterward the hospital had the reputation of being one of the finest mental hospitals in the country.

During World War II, the hospital was confronted with the same common problems that plagued similar hospitals over the country—severe shortage of personnel and inability to obtain supplies for adequate maintenance and necessary construction. Now that the war is over, it is our desire and purpose to make Weston again one of the outstanding mental institutions in the country.

With the full cooperation and support of Governor Clarence W. Meadows, and the members of the Board of Control, many desired changes have already been made.

Children, who were formerly cared for in all three of the state's mental hospitals, have been transferred to Huntington State Hospital. With all of the children segregated in one hospital, it will be possible to provide more adequate care, as well as to establish a training and schooling program to give them every opportunity possible.

The comparatively small number of the criminally insane in the state have all been transferred to the Weston State Hospital where they are cared for in a ward offering maximum security, yet providing the very best in medical and nursing care for their treatment.

All of the known tubercular patients in the Huntington and Spencer State Hospitals have been transferred to Weston. There they are being cared for on two floors of the new psychiatric unit. This building, I cannot help but mention, is one of the most modern and well equipped mental hospital units in the United States.

With the cooperation of the staff of the Hopemont Sanitarium, plans have been made to provide the very best treatment possible for the mentally ill tubercular patients. It is our plan to give pneumothorax and do phrenic crushings in selected patients whenever the tubercular process indicates and the patient's mental condition will so permit.

The state health department will soon have completed a tuberculosis survey of all patients and employees in the hospital. So far as can be ascertained, this is the first complete survey for tuberculosis that has ever been made in the hospital. After completion of the survey, all known tubercular patients will be hospitalized in our present tubercular units. Then, all new patients will receive a routine chest x-ray on admission, and it is planned that annual resurveys of all hospital patients will be made. The reason for this is that it is a well-known fact that the incidence of tuberculosis in certain types of mental patients is considerably higher than in the general population.

The immunization of all patients and employees against typhoid fever and smallpox is in the process of being completed. This has not been done in many years and is deemed advisable from a public health standpoint in view of the very large number of patients being cared for here at the hospital.

White uniforms have been ordered for all the attendants. We have already received the white uniforms for our female attendants and hope to have the new uniforms for our male attendants in the near future. While attiring attendants in white uniforms may seem relatively unimportant, it has a very important psychological effect on the patients. We would be shocked if we went into a general hospital

and found attendants or nurses aides dressed in a variety of styles of personal clothing. It is unfortunate that due to our limited appropriations we were forced to have the employees pay out of their own meager salaries the cost of these uniforms.

The present medical staff, while limited in number, is composed of men trained or interested in neuropsychiatry. For this reason, the need of a consulting staff was deemed advisable. With the full cooperation and support of the doctors in Weston and Clarksburg, a consulting staff on surgery, internal medicine, EENT, Genito-Urinary, Tuberculosis, and Dermatology was appointed. As a result, it has been possible to do major surgery and receive needed consultations on patients which has not previously been possible here at the Weston State Hospital.

With instruction and guidance of the attendants and careful supervision of the use of restraint, the number of patients in restraint has been reduced over fifty percent in the past two months. The same has been true with reference to the use of sedatives, the administration of which has also been markedly decreased. This reduction in the use of restraint and sedation can also be attributed to the earlier use of electro-shock therapy in indicated cases, the more prompt use of malaria therapy in paretics, and the use of hydrotherapy for disturbed patients.

During the summer of 1946, all patients, except bed patients, have been kept outside on the grounds for as many hours as possible each day. As a result, the patients are quieter and their general health has improved.

A complete classification of all patients is in process. To date, it has been possible to have all bed patients transferred to designated infirmary wards on both male and female sides. These patients were formerly scattered throughout all the wards in the hospital. The same has been true of hyperactive and difficult patients, who have been segregated in specially designated wards where, with a slight increase in the personnel, they can be better cared for.

Special male and female receiving wards have been designated where all newly admitted patients are kept for an adequate period of time for complete study and initial treatment.

The occupational therapy department has been reopened in a small way in keeping with our limited appropriations. This department had been entirely closed for a number of months. It is a well known fact that an active occupational therapy program is essential in the treatment of the mentally ill.

We have appealed to the clergy, the Red Cross, and various organizations to contribute old magazines, supplies for occupational therapy, and to assist in providing recreational activities such as bingo parties and dances for the patients. Two such bingo parties have already been held with great success and enjoyment for the patients. Now that the summer vacation period is ended, a number of bingo parties and dances for the patients are being planned. These additional recreational activities could not be provided with the present limited funds and personnel except for the aid and support of the people in the community.

So far we have mentioned a few of the minor accomplishments we have been able to achieve. We now wish to outline briefly our plans and hopes for the future which can be realized only with the full aid and support of the medical profession and the citizens of West Virginia.

One of the first objectives is to make every effort to educate the public in regard to the prevention of mental illness, the nature of it, and to impress on them that mental illness is a disease that in most cases can be treated and cured; that it is no disgrace if a member of the family becomes mentally ill; and, that our state hospitals are true hospitals in every sense of the word, and not places where, when one enters, all hope is lost. We have been able to take venereal disease out of the back closet. Let us now do the same with mental illness.

Weston State Hospital has more than ample clinical material to provide excellent short seminars for the medical profession of West Virginia. We would be most willing to arrange for clinics at any time that a group of doctors can arrange to visit the hospital.

It is hoped that we can soon provide adequate training facilities so that the student nurses in West Virginia can obtain full credit for phychiatric training in the state instead of being required to go to some outside mental hospital for this training.

Every effort will be continued to raise the standards of the hospital until it is accredited to provide psychiatric residencies at Weston State Hospital. In brief, it is our desire to make the hospital a center of psychiatric training for the doctors practicing in the state, as well as for residents and nurses. If this can be done, it will be found that the care and treatment of the patients will markedly improve.

As soon as adequate personnel can be provided, an outpatient clinic should be established. This should

be done by a psychiatric team consisting of a psychiatrist, a psychologist, and a psychiatric social worker. They should work out of the hospital and hold regular clinics in the communities to see adults and children who are referred to them. In this manner, many patients can receive early treatment which frequently will prevent hospitalization.

Additional psychiatric beds should be provided. The Weston State Hospital was constructed to care for 1395 patients and we at present have a patient load of 1810. This overcrowding is necessary if we are to succeed in keeping mentally ill patients out of our jails.

A typical example of the degree of overcrowding at present is that on the male side we have a large dormitory, 113 x 16 x 10, in which it is necessary to house fifty-two patients. This gives us a little over thirty-four square feet of floor space per patient or a space a little larger than 8 x 4 feet. With this little space provided to occupy a bed as a necessity, there is absolutely no room between beds, and patients are required to get in and out of bed by climbing over the foot of it. In calculating the air space we find it provides for a fraction over 347 cubic feet of air space per patient which is far below any acceptable standard from a health standpoint. These crowded conditions are typical of many of the wards here at Weston.

Notwithstanding the inflated bed capacity, all of the beds are occupied and it is impossible to transfer patients from one ward to another for psychotherapeutic reasons. It is a well established therapy axiom that as patients improve they should be transferred to wards where the rest of the patients are better adjusted. Such a procedure under the present crowded conditions is almost impossible and definitely inhibits the improvement and recovery of the patients.

Another factor necessary in the treatment of mentally as well as physically ill patients is their diet. It should be well balanced, adequate and varied. At present we have an appropriation of twenty-six cents per patient day for food. As everyone can appreciate, under present cost it is impossible to provide sufficient food to feed patients on this amount. To supplement this we are receiving approximately eleven cents per patient day in food from the Federal Government in the form of surplus commodities. This amount, however, cannot be depended upon and will undoubtedly cease within the next six to nine months. In addition to the two above mentioned sources of funds to purchase food, we have been compelled to transfer five cents a day from our appropriation for personnel and all other sources. Even with the total of forty-two cents a day it is impossible to give a varied diet. While the diet is adequate in calories, it consists largely of carbohydrates and the greater percentage of the protein is supplied in the form of peas and beans. Meat can be served only once or twice a week even when the market supply is adequate, and such items as eggs and fruit can be served only on rare occasions. While the amount available per patient day for food is insufficient for any patient, it is totally inadequate for our tubercular mentally ill patients and no special provision in appropriations has ever been made for over two hundred such patients whom we are caring for here at the present time.

Many of the buildings at the hospital are over seventy-five years old and are badly in need of repairs and remodeling. Some are beyond repair but, nevertheless, still have to be utilized. However, several of the buildings are extremely modern and up-to-date and can be used for several years.

Although proper buildings and equipment are essential to any successful hospital or school, what really makes it a great or a mediocre institution is the staff. At present, there are four doctors on the staff caring for over eighteen hundred patients, or a case load of four hundred and fifty per doctor. The required standards set up by the American Psychiatric Association is one doctor for each hundred and fifty patients. On that basis there should be twelve doctors on the staff. We at present have eight graduate nurses at the hospital. Three times that number are needed. The number of attendants is in the same proportion, and I wish to point out that due to the lack of adequate personnel they are required to work twelve hours per day with only two days off per month.

The salaries should be sufficient to attract a higher type of personnel. This is particularly true of the attendants. In addition to adequate salaries, proper living quarters should be provided. At present, Weston State Hospital has no adequate living quarters for any of the personnel. Staff physicians have one room and use a public bath, and attendants are required to live on the wards with the patients. It is impossible to expect to obtain and hold trained personnel under such living conditions.

While the care of the mentally ill is the responsibility of every citizen of the state, the members of the medical profession should be the leaders in a movement to see that these unfortunate individuals

receive the most modern and best type of hospitalization and medical treatment that can be provided.

While the cost of providing these added facilities for the care of the mentally ill will greatly exceed the amount now available for the purpose, it will be found that the number of patients returned to their communities will be considerably greater under such a program. Thus, the actual number of patients in our mental hospitals will be reduced in proportion to our growing population, with a very tangible savings to the state in the amount appropriated for additional hospitals for their care, and an immeasurable savings in the total economy of the state by decreasing the number of our incompetent dependent citizens.

THE PEOPLE'S HEALTH

Health is not a matter of competition among nations. Nor should it be among groups within the Nation. Yet as you know even better than I, our record is vastly more favorable for some preventable diseases than for others, for some geographical and economic groups of our people than for others. Even diseases which are almost 100 percent controllable are not universally under control—diphtheria, typhoid, and paratyphoid, for example, have caused no deaths in some States in some recent years; in others 3 or 4 deaths per hundred thousand still occur annually from these causes. Or compare tuberculosis death rates—5 or 6 times as high in the State with the poorest record as compared with the best. If the whole country had made as good a showing as the State with the most favorable record in 1943, well over 40,000 lives would have been saved in that single year.

The same kind of contrast—the same kind of tragic and needless waste—is revealed by infant mortality reports. The lowest rate reported by any State in 1943 was 30 deaths per thousand live births; the highest showed more than 3 times that many deaths; and at least half of these could probably have been prevented if the accident of geography had provided these infants with a more favorable birth place.

Even in the same county there are often shocking differences in infant mortality. You are probably familiar with the studies made in Cleveland from 1920 on, over a period of 17 years. In 1937, the last year of this survey, the infant mortality rate was 50 percent higher in families in the most meager income group than in those in higher economic levels.

These facts do not, of course, add up to a complete and definitive picture. But even if they are no more than straws in the wind of progress, they do point up the uneven sweep of the forces that make for health and illness across this broad land.

These forces are of many kinds—economic, social and educational as well as those which fall more strictly within the province of medicine. Poor housing, ignorance, inadequate community health protection all go hand in hand with lack of essential medical care.—Watson B. Miller in New York Medicine.

TREATING THE NEUROSES

To every physician of experience certain common and frequent problems of an emotional nature present themselves daily in his practice. Common sense has taught him to recognize the psychotic or grossly mentally disturbed individual. He knows that delirious reactions can occur from fever, overmedication, alcohol. He has seen patients in postoperative states of excitement. He can easily recognize the seriously depressed individual with his suicidal preoccupations. With these problems he is relatively little concerned since they are obvious and usually require the psychiatrist's attention. More commonly, however, he will encounter the patient with well-defined organic illness who reacts with strong emotion to it resulting in delayed convalescence, protracted symptoms and failure to respond to the usual medical regime.

Secondly, he will encounter those individuals whose disease picture represents a combination of physical and emotional problems (such conditions as peptic ulcer, colitis, hypertension, asthma, etc.) where he needs to know that the patient's emotional state may be the fundamental cause, may aggravate, may explain fluctuations, or may indeed determine the entire course of disorder. This group of patients fall under the heading of that much misused term "psychosomatic illness"—that area of medicine in which the patient's illness is most effectively treated by the joint cooperation of internist and psychiatrist.

Thirdly, he will recognize that group of patients whose genuine physical complaints are primarily expressive of emotional disorders. These are the fatigue states and the insistent bodily or somatic complaints which the ordinary techniques of medical examination are inadequate to explain.

Fourthly, there will be those patients whose complaints are predominantly psychological in nature. These individuals put to the foreground their symptomatology of anxiety, fear, obsessive thoughts and compulsive actions.

The practitioner may be as yet little acquainted with the fifth group of patients, those who present the interesting phenomenon of repeated accidents whom we have come to recognize as representing a special kind of personality make-up. The industrial physician recognizes this group, for he knows that the majority of accidents occur repeatedly among a small group of workers. The surgeon, the gynecologist, the genito-urinary and other specialists will recognize their particular problems of individuals who do not respond to repeated manipulations, who get persistently worse because of them, who may be rendered chronically disabled unless techniques other than physical manipulation are employed. Finally, every physician must learn to recognize the depressed patient with his characteristic sadness, insomnia, weight loss, gloomy outlook on life, and his potential risk of suicide. The practitioner can learn to treat depressions, anxiety states, fatigue reactions, hypochondriacal illness, and psychosomatic disorders. He is not equipped to treat more involved neurotic reactions.—Thomas A. C. Rennie, M. D., in Bull. N. Y. Academy Med.

CONGESTIVE FAILURE AND CEREBRAL ACCIDENT

(CASE REPORT)

By F. R. WHITTLESEY, M. D.
Morgantown, West Va.

In two cases recently under observation a curious amelioration of congestive failure occurred following the onset of cerebral injury. The two cases are summarized here in the hope that they may interest others.

No. 1. R. P., a man 74, had been ill for more that a year with hypertensive and arteriosclerotic heart disease. Through the past winter he was given frequent injections of mercurial diuretic, as digitalis and oral diuretics no longer controlled his dyspnea and peripheral edema. His condition for a time improved, but he eventually slipped back into marked failure with extensive edema and breathlessness, the latter severe enough often to force him to sit up in a chair several hours a night. On May 14, 1946, he developed a right hemiplegia and aphasia. For several days it seemed impossible that he could live: he was comatose, in severe failure, and paralyzed. After a few days he came out of the coma, his congestive failure began to improve, though only his digitalis ration was being given. His orthopnea and his pulmonary and peripheral edema gradually disappeared, as well as the gallop rhythm which had usually been present. No real improvement in the hemiplegia took place, though his mind cleared to some extent and he became continent and cooperative. Through a period of five months he remained completely free of all evidences of congestive failure. His digitalis was stopped on July 15, 1946. Signs and symptoms of failure suddenly reappeared, with no apparent reason, at the end of September. Digitalis and mercurials were resumed with prompt improvement in the failure, but sudden death occurred October 10, 1946.

No. 2. W. J. M., a man 70, for six months had suffered in moderate degree from congestive failure, the result of hypertensive and arteriosclerotic heart disease. In late May, 1946 his condition became worse, and his severe dyspnea forced him to spend a large part of his days and nights sitting up by an open window. The usual treatment was being carried out, but the period of relief from mercurial diuretics became steadily shorter until only about one day of partial comfort was provided by each injection. He was taken to a son's home some 200 miles away for a brief visit. He stood the journey well, and was given a repeat mercurial injection a couple of days later. Some adverse reaction took place, be became mentally disturbed, and it was thought he had had a stroke. His family brought him home five days later by ambulance. Examination showed him much disorientated and with a paresis of left arm and leg. Also an occlusion of the left popliteal artery had occurred, as the left lower leg was pulseless and cold. However the patient's distressing orthopnea (almost constantly present before) had completely disappeared, he was able to lie flat all of the time without any trouble, his chest showed no rales and he remained free of any evidence of congestive failure through the remaining five days of his life.

These two cases are examples of the complete disappearance of signs and symptoms of congestive failure soon after the development of a major cerebral accident. In each patient failure had been of long duration, and had been growing steadily worse, with great subjective distress, in spite of all methods of treatment. Both patients were invalids prior to their cerebral accidents, the occurrance of which did not put them more at rest than they had been before. In one patient the freedom from failure continued for five months, in the last two months of which no treatment at all was being given.

What the explanation for this phenomenon may be I do not know. I find no reference to it in standard works on heart disease, nor do I remember ever seeing any reports or discussions dealing with it. That there is some relationship between the development of cerebral injury and the disappearance of failure in these cases seems to me undeniable.

DDT DERMATITIS

Whether or not DDT is capable of causing dermatitis has been a matter of interest ever since it proved to be the decisive weapon in the battle against typhus in Naples. On that occasion human devastation by a deadly disease had to be prevented and there was little time for discrimination concerning the method used. Previous experience on a smaller scale indicated that DDT was the most effective agent available and it was used liberally without hesitation. The results obtained will long be remembered in the annals of public health as an epidemiologie victory comparable to the conquest of yellow fever following the Spanish-American War.

While occasional skin irritation among those on whom DDT was dusted so generously was regarded as probable, all evidence of any dermatitis was conspicuously absent or inconsequential.—International Medical Digest.

The President's Page

The medical profession has been interested in rural medicine for many decades, but for some unexplained reason, this interest has not been translated into action of sufficient force to bring about needed improvements and reforms in the service rendered. Inasmuch as our rural maternity and infant mortality and morbidity rates are higher than those in the cities in West Virginia, something must be done without much further delay.

Many of our people are so desperately aware of helplessness in the face of baffling complexities of the modern scientific practice of medicine, including the cost, that they are more and more willing to place their health problems in the hands of someone outside our profession.

During recent months, it has been my pleasure to visit a number of our component societies in essentially rural communities. The interest in health centers, medical centers, and diagnostic laboratories is tremendous. The doctors want to know how to start and they want to know what they can do to assist in getting the right kind of a program under way.

I do not think that it would be very difficult to obtain the aid of our state health department in establishing district laboratories. This would mean decentralization of the present laboratory set up. In many instances, from three to seven days are required to obtain reports from the state laboratory in Charleston, notwithstanding the valiant efforts of the director, Dr. Katherine Cox and her staff of efficient workers. They are doing a magnificient job in cramped and inadequate quarters.

With the establishment of district laboratories, the pressure would be taken off the state laboratory, and local doctors would be able to obtain immediate service. Laboratory assistance in diagnosis, available in rural communities, would help the patient by reducing time for symptomatic treatment. The public will appreciate this service more than we can imagine.

Another important phase to be considered in any program to improve rural health conditions, is the matter of nursing service. It is most urgent that the West Virginia State Nurses Association, the State Medical Association, and members of our legislature, consider ways and means of providing for the employment of the practically trained nurse to meet our present needs and to solve a desperate situation resulting from the lack of personnel in the field of trained and registered nurses. It is no exaggeration to say that the real art of nursing can easily be lost to the nursing profession. Higher and higher standards are fine for those who wish to specialize, but meanwhile it is the sick person who is being neglected and for whom something must be done now.

The time for talk has long since passed. The time for action is overdue.

Andrew E. Amick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journel, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

THANKSGIVING, 1946

The shortage in essential foods, particularly choice cuts of Grade A beef, the delay in the delivery of that new car, housing difficulties made more complex by what amounts to a virtual shutdown in plants manufacturing materials, and the inability of many of our returned medical veterans to obtain adequate office space, are all things that are disturbing at the present time. However, compared with conditions during the period from 1941 to 1945, we are living in a new world.

All but a very few of our doctors have returned from the wars and are located once again in their home communities, there taking up almost where they left off. We are more than thankful to have them back with us, even though conditions would be found by them much more to their liking if the remedy lay in our hands.

We would not be realistic if we did not concede that there are many problems to be solved before this war-weary and war-torn world can be returned to some semblance of order. While we should all offer a fervent prayer of thanksgiving that the war has ended, we should not stop there, but should join with our fellowmen in helping to build the kind of world that will not tolerate wars. With pride in our past glories and full faith in the future, we can and will triumph over our present difficulties if we will but work together in brotherly love and understanding.

MR. STASSEN'S VIEWS

The views of any potential candidate for the presidency of the United States are, or at least ought to be, of definite interest to every citizen, and his plans for the guidance of any calling and the work to be accomplished by that calling are of consuming interest to all members of the calling concerned. Accordingly we are pleased to see Mr. Harold E. Stassen's "Program for Progress" in a recent issue of Collier's. One may not agree with all his views, but still Mr. Stassen must be given credit for presenting a straight-from-the-shoulder program and having what the southern mountaineers call "sand enough in his craw" to say what he thinks and to present a positive program for the solution of the great questions, foreign and domestic, confronting the American people today.

As *citizens* physicians are interested, or at least should be, in all phases of the public questions presenting themselves for solution, but as *physicians* two planks in Mr. Stassen's platform are of peculiar interest to us. The first of these is the matter of honest governmental statistics. It is obvious of course that all statistical reports given out by the federal government should be absolutely accurate and unwarped, else conclusions based upon them are "as the chaff which the wind driveth away", and worse than useless. Mr. Stassen cites an instance of what he believes to be questionable statistics being given out by the Department of Commerce, and incidentally a leading columnist has just given vent to a blast against what he deems improprieties in the Steelman report. Moreover, we have heard it rumored many, many times that at least one man who ranks high as a statistician in Washington officialdom warps his statistics as to medicine and medical economics so as always to present a good argument for compulsory governmental sickness insurance. So common is the rumor that the name of this individual is known to a large percentage of the practicing physicians throughout the United States. Mr. Stassen says he will "insist upon honest governmental statistics and let the chips fall where they may. Tampering with governmental statistics is just as bad as tampering with the judiciary. The basic facts of what is going on in the country must be accurate, honest and open. They are the foundation for a multitude of decisions by thousands of individuals that have a very important effect upon the social and economic success of the country. There has been an amazing increase in the unreliability of governmental statistics in this past year . . .

"The statistical bureaus of the government should be conducted by civil servants who are not partisan, who have high professional standards and who make their statistics available to all who ask for them, regardless of whether they reflect credit or discredit to a particular administration. This is of tremendous importance to the people and they should insist upon it with the same vigor with which they insist that their courts should not be tampered with."

The second plank to which we call the attention of the physicians of West Virginia is the program presented for meeting the medical needs of the country. The ideas advanced are worthy of the serious consideration of our whole populace, and certainly that of the entire medical profession, the individuals who will do the medical job regardless of the mechanism adopted for delivering medical care to all the people. We quote the essentials of the plan outlined by Mr. Stassen:

"National health problems will also find some new answers . . . The . . . program will be based squarely upon the existing medical and hospital insurance plans and will not disrupt these as the presently proposed national legislation would. Building upon the sound existing status of professional individualism, it will seek to safeguard small and moderate income families from the crushing effects of extended illness and serious injuries.

"Another important phase . . . is (the) establishment of a universal health and dental annual check-up, with consequent professional advice not limited by the means of the individual. Likewise, the extension of hospital facilities, the coordination of various health programs, the emphasis on prevention of disease, and administration on state and local levels will be major parts of the expanded national health program".

We would have added another item: the establishment of a department of public health, with a secretary who should be a doctor of medicine and have a seat in the President's cabinet, and we pass this idea (which is not new to medical men) along to Mr. Stassen and the other presidential aspirants for their consideration and for what it is worth. We believe it should be the foundation stone of any national health program, but a layman, of course, might hold other views. Also, we shall be glad to discuss editorially the views of any presidential aspirant who has the honesty and frankness to present his views forthrightly on medical problems as Mr. Stassen has done.

TESTOSTERONE PROPIONATE

The Council on Pharmacy and Chemistry of the American Medical Association has at last accepted testosterone propionate (the propionic acid ester of testosterone) for admission to New and Nonofficial Remedies. The report is very temperate and cautious, and we believe properly so, in that only the definitely proven values of the drug are accepted. Its androgenic properties are recognized. The drug may be prepared synthetically from cholesterol or from testosterone isolated from the testicles of bulls. As to the actions, usage and dosage, we quote from the report of the Council:

"**Actions and Uses.**—Testosterone propionate is primarily useful to supply testicular hormone for the treatment of deficiency or absence of this internal secretion of the male. It may therefore be of value in the treatment of prepuberal and postpuperal eunuchoidism or hypogonadism (deficiency states) and in postcastration and eunuchism (absence of testicles). In the latter instances treatment must be regarded as replacement therapy and is of benefit only as long as it is continued.

Its use in eunuchoidism is intended to promote prepuberal development of primary and secondary sexual characteristics or to relieve postpuberal constitutional symptoms attributable to deficient secretion. In the treatment of constitutional symptoms in young males it should be borne in mind that less is usually needed to obtain relief than the amount required to promote pubescence and development of infantile genitalia, and that it is unwise to stimulate full sexual maturity in youths who are psychologically and otherwise physically unprepared for adult life. In eunuchoidism not due to primary testicular hypoplasia, efforts to eliminate secondary etiologic factors should take precedence over the use of androgens.

In adults, hypogonadism (functional deficiency) manifested by constitutional symptoms and effeminacy without striking anatomic changes, symptomatic improvement may follow androgenic therapy. Atrophy of accessory male structures that follows castration or is associated with eunuchism may also be effectively prevented or these organs restored to normal and maintained by continuous substitution therapy.

The use of androgens in the treatment of other conditions such as cryptorchism, the "male climacteric," angina pectoris, ovarian dysfunction (functional uterine bleeding), dysmenorrhea and other gynecologic conditions is experimental and cannot be recognized until more conclusive evidence becomes available.

Dosage.—Testosterone propionate is administered intramuscularly in doses ranging from 5 to 50 mg. from two to six times weekly, depending on the response obtained. To induce pubescence in eunuchoidism, 10 mg., increased as indicated to 25 mg. three times weekly, may be employed over a period of several weeks. To relieve constitutional symptoms as little as 5 mg. at similar intervals may be sufficient. Depending on the condition and the

effect desired, the maintenance dose must be determined in each individual case. Priapism is indicative of excessive dosage, and its production is an indication for temporary withdrawal of the drug. Caution is also necessary to avoid precocious sexual development in young boys. Its indiscriminate use should be guarded against, since the drug may produce irreversible masculinizing phenomena in the female. Testosterone propionate has a standard potency of 50 international capon units per milligram and is usually dissolved in oil for intramuscular injection.

The accepted product, "Testosterone Propionate in Oil," prepared by Rare Chemicals, Inc., is available in 1 cc. ampuls of 5 mg., 10 mg., and 25 mg. put up in sesame oil.

STATE HOSPITALS OVERCROWDED

Throughout the country state hospitals, endowed and private institutions are overcrowded. The outpatient departments for the psychoneuroses, psychosomatic conditions, and for the organic diseases complicated by neurosis are not equipped to take care of their patients. There are too few psychiatrists to care for the patients in the state hospitals, the general hospitals, outpatient departments, and in office practice. Until recent years the medical schools have paid all too little attention to psychiatry. There are too few psychiatrically trained nurses and social workers, who are necessary for the management of large groups of phychoneuroses. Psychiatry either remained aloof or was kept apart from the rest of medicine and surgery, and psychiatry did not come into its own until very recently. Moreover, it is to be recognized that these psychiatric problems are here to remain and the aim should be not only to overcome the emergency but to plan for future demands. . . .

Phychiatry has changed its complexion very markedly in the past century, especially in the past few decades. Psychiatry no longer means taking care of the insane. It has a larger implication and its interests permeate every branch of medicine and surgery. But even the idea of psychotic patients housed in a general hospital is not a new one. The Pennsylvania Hospital, at the request of Benjamin Franklin to the General Assembly of Pennsylvania, established a department for the psychotic patients in 1751 and a similar department was established in the New York Hospital in 1808. However, it was not until this century that psychiatric departments were established in various communities in this country, more particularly in the Middle West. At the present time there are excellent psychiatric departments in several of the hospitals in New York, Chicago, Detroit, and especially in relatively small hospitals throughout the Middle West. Moreover, a good many of these hospitals have excellent outpatient departments where thousands of bordering mental cases, phychoneurotics, and patients with organic conditions complicated by neuroses are cared for.—Joseph C. Yaskin, M. D., in Pa. Med. J.

HORSE AND BUGGY BUDGETS

Will the downward curve of deaths from tuberculosis continue through the post-war period? War-time development of mechanical aids to case-finding should make this possible if the rest of the tuberculosis control program keeps pace with early discovery.

In the field of treatment, progress may be noted in improved health education of the patient and the further study of his economic and social adjustment as well as of his lesions. During the war years, sanatorium and clinic physicians have added more to the literature of these phases of treatment than appeared in a decade of pre-war articles.

But those who administer hospitals and sanatoriums today face new and grave fiscal problems. Concurrently with a demand for improved medical and extra-medical services for better staffing comes a spiral increase in costs. Prices for hospital supplies and repairs have soared. Former hospital employees who have experienced better pay and shorter hours in war industry or in the military services no longer choose to work for the honoraria which have been characteristic of our sanatorium economy.

Despite growing treasury surpluses in a number of states, tuberculosis hospital budgeting has seldom experienced parallel rises. Budget makers still tend to plan in terms of the pay levels of the depression years, still expect the resident, the internist, the nurse and the maintenance worker to serve the tuberculous for a fraction of what they can receive in industry or in private practice.

The fruits of a similar fiscal policy may be viewed in recent exposes of certain mental hospitals. In such institutions the patients cannot escape, cannot infect others. Tuberculosis patients can and do leave understaffed, underfinanced sanatoriums against medical advice to form one of our principal sources of new cases. Before we have completely solved the problem of adequate number of beds, we are confronted with beds so inadequately staffed they cannot accomplish so much as effective isolation of communicable disease, not to mention other medical results.

In many hospitals further improvement of services is prevented because those who control the budget will not vote the additions needed to accomplish the objective. Thus we are made to continue the expensive litany of second-rate treatment, de-

partures against medical advice and avoidable reactivations, in the name of an alleged economy.

The operating budget of public tuberculosis hospitals and sanatoriums should be conspicuous in the educational agenda of every organization for the control of tuberculosis and the improvement of public health. To educate the public concerning the nature and transmission of the bacillus is enlightening; to enlist currently adequate public support for the instrumentalities by which tuberculosis may be controlled and conquered is practical as well. —*Holland Hudson, Director, Rehabilitation Service in NTA Bulletin.*

COMFORTING THE AGED

Physicians are frequently consulted by seekers of perpetual youth. Some complain of ailments in cases where old age is the chief factor and a turning back of the hand of time is the only remedy.

Many, when they discover for the first time that they are slowing down and cannot keep up with the pack, apply for relief but give advancing years no thought in connection with the situation. When told that this or that symptom may be expected as a normal manifestation of declining years, they are not reconciled. They are disappointed to find that their strength is not the same as it used to be in the prime of life. They consequently become worshippers of false gods and listen to the siren lure of empty but very appealing promises printed on patent medicine wrappers. On such labels they find their potency cunningly questioned, with the insidious implication that sexual vigor is the infallible index of youth and health. Despair enters and gloom prevails.

We do not argue that the physician should practice deception in these cases and hold forth false hopes, but certain we are that such patients should not be bluntly and cruelly driven away. They deserve good treatment and sound advice. Persons in the age of involution should be seen periodically by a doctor who understands how to prescribe medicine and dispense encouragement with the same kindly equanimity. We know of instances where the children of the family, grown up and living elsewhere, have thoughtfully provided for a monthly visit to the old home by the family physician, to afford a feeling of security in the care of their aging parents. Twilight, with its fading shadows and its evening star, may well fit into a picture of quiet contentment and serene beauty, in the making of which the tactful physician can often play an important part.—A. E. H. in Geriatrics.

SOUND ADVICE

It is a good thing to have money and the things money can buy, but it is good, too, to check up once in a while and make sure we haven't lost the things that money can't buy.—George Horace Lorimer.

General News

CANCER CONTROL DIVISION REPORTS FOR FIRST TWO YEARS' OPERATION

The Division of Cancer Control, State Health Department, has just recently completed its first two years of operation, during which 983 cases referred to it have been given consideration.

Cases are divided into five different categories: (a) active cases, (b) financially ineligible, (c) incurable, (d) non-malignant, and (e) deceased. The following table indicates the number and percentage of cases referred in these various categories:

Actives cases	533	54%
Financially ineligible	28	3%
Incurable	79	8%
Non-malignant	155	16%
Deceased	188	19%
Total	983	100%

According to Dr. Paul R. Gerhardt, director of the division, 828, or 84% of the total cases referred proved to be malignant. In studying the 128 deceased cases (19%), it is noted that the greatest number were elderly individuals, the average age being approximately 76 years. Many of the deceased cases were referred to the division in the terminal stages of the disease when no active cancer treatment was indicated.

Because of the large number of case referrals, the division has been compelled to limit its program to needy cancer patients who present a good prognosis.

The following tables prepared by Doctor Gerhardt show a breakdown by diagnosis in the four main categories:

Active Cases:

1. Cervix-Uterus	136	27%
2. Skin	212	39%
3. Male Genital	15	3%
4. Breast	63	12%
5. Digestive Tract	12	2%
6. Respiratory	5	1%
7. Unspecified	56	10%
8. Other Female	8	1%
9. Buccal Cavity	29	5%
Total	28	100%

Financially Ineligible:

1. Cervix-Uterus	6	22%
2. Skin	5	19%
3. Male Genital	0	00
4. Breast	4	14%
5. Digestive Tract	3	10%
6. Respiratory	2	7%
7. Unspecified	6	22%
8. Other Female	1	3%
9. Buccal Cavity	1	3%
Total	533	100%

Incurable:

1. Cervix-Uterus	22	28%
2. Skin	4	5%
3. Male Genital	9	11%
4. Breast	4	5%
5. Digestive Tract	17	22%
6. Respiratory	4	5%
7. Unspecified	12	16%
8. Other Female	0	00
9. Buccal Cavity	7	8%
Total	79	100%

Deceased:

1. Cervix-Uterus	48	25%
2. Skin	20	11%
3. Male Genital	11	5%
4. Breast	17	8%
5. Digestive Tract	40	22%
6. Respiratory	11	5%
7. Unspecified	30	15%
8. Other Female	4	1%
9. Buccal Cavity	17	8%
Total	188	100%

The following table shows all malignant cases referred to the division divided into the nine diagnostic categories:

1. Cervix-Uterus	212	26%
2. Skin	241	29%
3. Male Genital	35	4%
4. Breast	88	11%
5. Digestive Tract	72	9%
6. Respiratory	22	2%
7. Unspecified	104	12%
8. Other Female	13	1%
9. Buccal Cavity	54	6%
Total	828	100%

Notwithstanding financial limitations, Doctor Gerhardt has made it clear that he would like to have referred to the division of cancer control all suspected cases in need of financial assistance. Even though the case proves to be non-malignant or incurable, it is through such referrals that the division will be able to obtain statistics which may lead to further development of the program and a more adequate service to cancer patients in this state.

PRESIDENT LOCATES AT LEWISBURG

Dr. Andrew E. Amick, of Charleston, president of the West Virginia State Medical Association, who has been located in Charleston since 1930, has moved to Lewisburg where he will continue the practice of his profession. He moved with his family to Lewisburg several months ago, but continued in part-time practice at Charleston until early in October.

NEW HEALTH OFFICER

Dr. Harry F. Coffman, of Keyser, has been named by the public health council as part-time health officer for Mineral County.

OVER 30,000 EXPECTANT MOTHERS HAVE BLOOD TEST DURING YEAR

Since the prenatal blood test law became effective in July, 1945, 80 per cent of the expectant mothers in the state have received a blood test for syphilis prior to the birth of their children. However, of this number, only about 40 per cent were given the test on or before the fifth month of pregnancy, notwithstanidng the fact that health authorities have placed particular emphasis on the importance of having the blood test made before the fifth month so as to avoid as far as possible the hazards of miscarriages, stillbirths, or congenital syphilis.

According to Mr. E. J. Hall, educational consultant for the bureau of venereal disease control, state health department, of the 36,071 expectant mothers examined during the fiscal year ending June 30, 1946, 674 were found to have syphilis. While 514 were new cases which were placed under treatment, 160 expectant mothers had previous knowledge of the disease.

In an address prepared for delivery before the northern district health conference at Fairmont, October 11, Mr. Hall said that "the low percentage of expectant mothers receiving blood tests in the first five months of pregnancy indicates that only a small number of women are receiving proper prenatal care in West Virginia, and no doubt partly accounts for the fact that West Virginia's infant mortality rate is 30 per cent higher than the United States as a whole."

Mr. Hall reported that five per cent of all deliveries in West Virginia are performed by licensed midwives. The act itself makes no provision for a blood test by midwives, but county and district health officers are charged with the duty of obtaining blood specimens for performing serologic tests for syphilis. There is no charge for this service, and examinations are made also without charge at the state hygienic laboratory.

The law goes farther than this and provides that in areas where there is no county or district health officer, the state health department is to assume the responsibility of obtaining specimens without charge to pregnant women.

MRS. JOHN P. HELMICK HONORED

Mrs. John F. Helmick, of Fairmont, past president of the Woman's Auxiliary to the West Virginia State Medical Association and immediate past president of the Woman's Auxiliary to the Southern Medical Association, was elected fourth vice president of the American Medical Association Auxiliary at the annual meeting held in San Francisco, in July, 1946.

HOMESTEAD APPROVED AS HEALTH RESORT

The Homestead, at Hot Springs, Virginia, has been placed on the approved list of American health resorts, according to an announcement in the October 5 issue of the Journal of the American Medical Association. The approval is effective as of September 1, 1946.

AMERICAN LEGION OPPOSES W-M-D BILL

The following resolution was unanimously adopted at the 28th annual convention of the American Legion at San Francisco, October 4, 1946:

WHEREAS: Veterans who have served in the armed forces now have available to them hospital and medical care provided by the United States Government; and

WHEREAS: There are countless voluntary health insurance plans now being offered by the physicians and the insurance companies; and

WHEREAS: Proposed plans of compulsory health insurance would increase the tax burden and bring about regimentation of the medical profession; and

WHEREAS: All forms of compulsion are repugnant to our American way of life since our liberties and opportunities would be circumscribed;

NOW, THEREFORE, BE IT RESOLVED: That the National Assembly of the American Legion hereby expresses its opposition to compulsory health insurance.

A. M. A. SCIENTIFIC EXHIBIT

The Scientific Exhibit at the Centennial Session of the American Medical Association, Atlantic City, June 9-13, 1947, will include both the history of medicine during the last century and the latest developments of medical science.

Application blanks for space are now available. Applications must be made on or before January 13, 1947, after which time the committee on scientific exhibit will decide what exhibits will be used. Inquiries should be addressed to the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

VA HOSPITAL AT MARTINSBURG

The installation for the Veterans Administration Hospital (formerly the Newton D. Baker General Hospital) at Martinsburg, will be handled by Col. E. L. Cook, formerly commanding officer at the hospital.

The Veterans Administration will take over the institution as soon as the war department inventory has been completed. The personnel, including physicians, nurses, etc., is now being recruited by T. W. Andrews, executive officer at the facility.

It is believed that the hospital will be used by the Veterans Administration until new veterans hospitals are completed in West Virginia and Pennsylvania.

NEW RULE FOR INTERNS AND RESIDENTS

On and after July 1, 1948, interns and residents employed at West Virginia hospitals must be graduates of recognized medical schools. The Public Health Council, at a meeting held recently at Charleston voted to exclude graduates of unrecognized schools from serving internships and residencies at hospitals in this state after that date. This rule will affect contracts made by hospitals on and after November 1, 1946, but will not affect service by interns and residents under existing contracts.

THE PUBLIC RELATIONS OF THE AMERICAN MEDICAL ASSOCIATION

At the meeting of the House of Delegates of the American Medical Association held in Chicago in December 1945 the Board of Trustees announced to the House of Delegates that it had employed a public relations counsel to survey the work of the American Medical Association in its relationships to the medical profession and the public. The Raymond Rich Associates were employed for the purpose and spent almost six months in an intensive study of the activities of the Association in its headquarters office and in sampling opinion from a variety of sources as to the public concept of the work of the Association in advancing the progress of medical science, in rendering medical service and in exercising leadership in the medical field. The Rich report was sent by Mr. Rich directly to each member of the Board of Trustees of the American Medical Association about two weeks before the time of the annual session in San Francisco. A portion of the report was analyzed by the Board of Trustees and presented to the House of Delegates at that time. The rest of it was referred by the House of Delegates to a special committee appointed by the speaker of the House of Delegates so that the entire report might be given consideration by this committee of the House, working with the Board of Trustees, for submission to the House of Delegates at the midwinter session, to be held in Chicago early in December.

During the week just past the special committee of the House of Delegates, headed by William Bates (Pennsylvania), and including Barney J. Hein (Ohio), Allen H. Bunce (Georgia). David D. Scannell (Massachusetts), Thomas Lewis (New Jersey), S. J. McClendon (California) and E. H. Cary (Texas), met with the Executive Committee of the Board of Trustees, except for two members who were unavoidably absent, and went over carefully not only the portions of the Rich report already acted on by the House of Delegates but also the rest of it. Copies of the complete Rich report will be given to the House of Delegates at the midwinter session in Chicago. The Rich report has been copyrighted by the American Medical Association and reproduction, in whole or in part, without specific authority is forbidden.

Some misapprehension was expressed at the San Francisco session over the fact that the Board of Trustees did not at that time present to the House of Delegates the complete text of the Rich report. The portion which was presented to the House of Delegates dealt with certain actions already in progress, to which the Board of Trustees had given careful consideration. The recommendations of the Board of Trustees were at that time accepted by the House of Delegates. They included as their prime objective the establishment in the headquarters office of a division of public relations under a full time, salaried public relations counsel, intensification of the activities of the Council on Medical Service leading toward prompt fulfillment of the desire to set up throughout the nation voluntary systems of prepayment against the costs of sickness which would cover vast number of

people, and extension through The Journal and Hygeia to the medical profession and to the public of information regarding the progress of medical science and its good for the American people, with special emphasis on the celebration in 1947 of the one hundredth anniversary of the American Medical Association.

Although the time has been short since the meeting in San Francisco during the first week of July, the Board of Trustees has already taken the necessary steps toward expansion of Hygeia, both in make-up and in circulation, toward expanding the radio program of the American Medical Association on a considerable scale and toward a crowning celebration of the Centennial at the meeting in Atlantic City in June 1947. The Council on Medical Service has intensified its efforts toward the extension of voluntary prepayment plans and has reported a rapid rise in the enrollment of people in such plans. Conferences have been held with representatives of nonprofit as well as of private insurance plans, and the establishment of acceptable standards is well underway. The Board of Trustees in a meeting just completed has authorized the retaining of Raymond Rich Associates as a public relations counsel, as well as the employment of a full time officer for this purpose in the headquarters office, with a budget adequate to the needs of the Association.

A controversial portion of the report deals with the relationships of the American Medical Association to other organizations concerned with opposition to the so-called socialization of medicine. Previous meetings of the House of Delegates have unanimously endorsed the efforts of the National Physicians Committee and of other organizations with like objectives. This question, as considered in the Rich report, will come for consideration before the House of Delegates at the midwinter session.

The rest of the Rich report deals with the functions of the various councils and bureaus in the headquarters office, with the pamphlet and book publications issued by such groups, and with the manner in which their work is extended to the medical profession and the public. As in all reports of efficiency experts and public relations counsels, some criticisms of relatively minor importance have been made—some, indeed, without apparent full understanding of the possibilities inherent in the circumstances, the facilities available to accomplish certain objectives, or similar factors. By direction of the Board of Trustees, the Secretary and General Manager of the Association has submitted each of these sections of the Rich report to the respective council or bureau in the headquarters office, and the special committee of the House of Delegates as well as the House of Delegates itself, will be given full opportunity to review not only the statement in the Rich report but the analysis and critique of such statement by the respective council or bureau concerned.

Apparently some agencies, publications or individual physicians. intent on arousing dissension in the House of Delegates of the American Medical Association and on disrupting the unity of the Association in accomplishing the objectives that it has established, are endeavoring to foster discontent by unwarranted assertions that there has been purposeful secrecy in the handling of the Rich report and by asserting that the report itself contained charges or criticisms of serious import and reflected unfavorably on the councils, bureaus or officials of the Association. These statements are without the slightest basis in fact; they are unsupported by any evidence in the Rich report itself. Members of the House of Delegates and physicians generally will do well to await the careful, mature reception and analysis of this report by the House of Delegates and the final action taken by the Board of Trustees before giving any credence to such assertions. The actions already taken by the Board of Trustees on that portion of the Rich report which was presented to the House of Delegates should be sufficient evidence that the Board of Trustees of the Association and its employed officials are doing everything possible to further the objectives sought by the employment of a public relations counsel so that these activities of the Association might be kept up to date with the most modern concepts in this field.—Sept. 28, 1946, issue of J. A. M. A.

TRI-COUNTY MEETING ON NUTRITION

An all-day meeting sponsored by the State Nutrition Committee and the Monongahela Dental Society will be held at Fairmont, November 20, 1946. Guests will be present from Marion, Monongalia and Harrison counties, and committee meetings will be held during the morning and afternoon.

Dr. Wiley L. Forman, of Ohio State University School of Medicine, at Columbus, will be the guest speaker at the night meeting, which will be open to the public.

RELOCATIONS

Dr. Thomas H. Bruce, of New Cumberland, has accepted a position on the staff at the Veterans Hospital, at Dayton, Ohio, specializing in the treatment of tuberculosis. Doctor Bruce was released from service with the Army in May, 1946, with the rank of lieutenant colonel.

* * * *

Dr. A. M. Price, of Charleston, has moved to Madison, where he will engage in the practice of his specialty of EENT.

AM. ACAD. DERM. AND SYPH. TO MEET

The fifth annual meeting of the American Academy of Dermatology and Syphilology will be held at the Statler Hotel, at Cleveland, December 7-12, 1946. In addition to the general sessions, daily symposia will be held at the Allerton Hotel, with teaching clinics scheduled for December 9-11, at the Clevenland City Hospital. Full information concerning the meeting may be obtained by writing to Dr. Earl D. Osborne, Secretary, 471 Delaware Avenue, Buffalo, New York.

NATIONAL FOUNDATION APPOINTMENT

Dr. Clair E Turner, formerly of the Massachusetts Institute of Technology faculty, has been appointed assistant to President Basil O'Connor of the National Foundation for Infantile Paralysis.

Prominent for his work in the field of health education and as chief health education officer for the Institute of Inter-American Affairs during World War II, Dr. Turner will be engaged in strengthening relationships between school systems and the various activities of the National Foundation.

AAPS TO MEET IN CHICAGO

The annual meeting of the Association of American Physicians and Surgeons will be held November 7-9, 1946, at the Palmer House, in Chicago. There will be ten addresses by prominent speakers, and already invitations have been accepted by Senator Robert A. Taft, of Ohio; Dr. Marjorie Shearon, research analyst for the Senate Minority, Washington; Dr. A. S. Brunk, of Detroit, past president of the Conference of State Presidents and other Officers; and Samuel B. Pettengill, of Indiana, noted lecturer and author. There will be no registration fee, and all members of component medical societies are invited to attend the sessions. Full information concerning the program may be obtained from Dr. Frederick B. Exner, Secretary, 11 South LaSalle Street, Chicago 3, Illinois.

NAMES PUBLICITY DIRECTOR

The Executive Committee of the West Virginia Cancer Society has named Calvert L. Estill, of Charleston, as publicity director effective as of October 1, 1946. Mr. Estill was formerly director of public welfare of West Virginia. He is prominent in American Legion circles, having served as captain in World War I. At the present time he is staff correspondent for the Ogden chain of newspapers. He has taken an active part in campaigns for funds to fight cancer, and his wide acquaintanceship among the newspaper men over the state will be of aid to him and the society, not only in future campaigns, but in the continuing work of the division of cancer control of the state health department.

DR. LAMBERT RESUMES PRACTICE

Dr. John P. Lambert, who served as psychiatric member of the Selective Service Examining Board in this area during World War II, has resumed civilian practice with offices at Katonah and Mt. Kisco, New York. Doctor Lambert was stationed at Huntington until the last few months of the war.

DR. BRADFORD PROMOTED

Dr. Bert Bradford, Jr., of Charleston, who was released from military service late in 1945 with the rank of Lieutenant Colonel, has been promoted to the rank of Colonel in the reserve forces of the United States Army medical corps. During World War II, Doctor Bradford served with the 45th Evacuation Hospital in the E. T. O. He was awarded the Legion of Merit for services as Chief of Surgical Service with that army hospital from August, 1944 to May, 1945.

THE WEST VIRGINIA MEDICAL JOURNAL

302 ATLAS BUILDING, CHARLESTON, W. VA.

The Committee on Publication is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author or communicant shall be held entirely responsible.

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ENTERED AS SECOND-CLASS MATTER, JANUARY 1, 1926, AT THE POST OFFICE AT CHARLESTON, WEST VIRGINIA

Vol. XLII DECEMBER, 1946 No. 12

SOME COMMON PRECANCEROSES OF THE SKIN

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The definition of precancerosis as found in Dorland Medical Dictionary is, "occurring before the development of a cancer". It is important to understand this conception for it applies to the earliest stages in development of the cancer cell. This conception is based on statistical data and includes lesions and changes which do not fulfill all the criteria of malignancy but which eventually become malignant in a relatively high percentage of instances. For example, the senile keratosis is a precancerosis since a large number of them give rise to prickle cell epithelioma. The seborrheic keratoses, on the other hand, are not considered precanceroses because only a very small number ever develop into a cancer.

The principle precanceroses as outlined by Mackee and Cipolloro are:

Cicatrix
Cornu cutaneum
Erythroplasia
Farmer or sailor's skin
Keratoses:
1. Arsenical
2. Seborrheic
3. Senile
4. Occupational

Kraurosis vulvae
Leukoplakia
Lupus erythematosus
Lupus vulgaris
Nevi
Radiodermatitis
Sebaceous cyst
Syphilis
1. Leukoplakia
2. Interstitial glossitis
3. Syphilitic scars

Ulcers of long standing
von Recklinghausen's disease
Xeroderma pigmentosum

The following brief description may help in the better understanding of some of the more common forms of the precanceroses.

SENILE KERATOSIS (KERATOMA SENILIS)

This precancerosis occurs most often in the aged but may be seen in younger persons with predisposition or those who are exposed to the direct rays of the sun for many years. These lesions appear as small, slightly elevated, or depressed, sharply circumscribed scaly, reddish, light brown, or sometimes dark brown or grayish black macules. The scales are adherent and when scraped off, bleeding follows. The exposed areas of the body are most commonly affected.

There are several other varieties of keratoses which are precanceroses, chiefly arsenical and occupational keratoses. Arsenical keratoses result from prolonged exposure to arsenic medication or to arsenic in industry. The lesions are small, almost punctate, warty, hard, usually numerous, and slow growing. Gradually they increase in depth as well

as in diameter and change from a benign state into squamous cell epitheliomas.

Senile keratosis without infiltration, ulceration or inflamation can be cured by local destructive measures such as carbon dioxide snow. In using this method the surrounding skin is protected with an ordinary ink blotter cut so that all the normal skin is protected, after which carbon dioxide snow is applied to the lesion for approximately thirty seconds using moderate pressure. Temporarily, the area becomes porcelain white and an erythematous reaction appears around the treated area. A bullous lesion is produced which heals by desiccation or rupture leaving an erythematous spot which becomes paler in the course of several months. Destruction with acid is another method sometimes used.

RADIODERMATITIS

Both radium and roentgen rays produce changes in the skin. When these changes are clinically manifested the condition is known as a radiodermatitis which may be acute or chronic. The acute ulcer due to radium or roentgen rays presents a great problem. Chronic radiodermatitis appears in a variable length of time, i.e. from three to twenty years. It is characterized by atrophy, sclerosis, pigmentation, depigmentation, telangiectasia and wrinkling of the skin. Such an area later becomes fertile ground for a basal or squamous cell epithelioma. In its mildest form chronic radiodermatitis may be only a slight pigmentation or a telangiectatic spot with smooth skin dryer than the surrounding area. Various intermediate lesions are found between these two types.

Simple erythema requires very little treatment except the application of a bland ointment Healing usually takes place within a few weeks.

The acute ulcers offer a much greater problem. There are numerous conservative measures which should be tried; cod liver oil ointment 10 to 50 per cent or sulfathiazole 3 to 5 per cent in cod liver oil, or as an ointment seem to be the most effective. The excruciating pain which is often associated with these ulcers may be relieved by the addition of 5 to 15 per cent benzocaine or similar anesthetizing agents to the ointment. Occasionally continuous boric acid wet soaks will relieve the pain. If the ulcer is on an extremity the part should be immobilized. In recent years the Aloe Vera plant, a species of cactus, has been used with success in treating these ulcers; in European countries thorium X has been used. However, this latter medicament is not commercially available in this country.

Radon ointment and solutions have been advocated but generally are frowned upon by most physicians. The effective dose has not been established and severe radiodermatitis has at times developed from the incorrect application of radon ointments.

When these ulcers do not respond to conservative treatment they should be excised. Plastic repair may be necessary.

Keratoses which develop at the site of a chronic radiodermatitis rarely grow larger than a lentil or a pea. If untreated these keratoses are likely to undergo malignant change. The best method of treatment is to destroy them by high frequency monopolar desiccating current. Local anesthesia must be used but care should be taken not to damage the surrounding tissue unnecessarily. One or two applications of trichloracetic acid often will destroy the smaller growths completely.

Ulceration may occur following chronic radiodermatitis, especially when a large area is devitalized. These ulcers may heal slowly under the conservative treatment outlined for the acute ulcer. If they do not yield to conservative treatment within four to six months, the ulcer should be removed surgically, and the skin edges brought together so that primary union may be obtained. If this is not done the lesion will heal by granulating in from the floor of the ulcer. Good results can be accomplished by electro-desiccation.

LEUKOPLAKIA

Leukoplakia is a common precancerosis and is found most frequently on the mucous membrane of the cheek, and the anterior half of the dorsal aspect of the tongue. Occasionally most of the oral cavity may be involved.

In the mild form leukoplakia is made up of smooth, whitish, or bluish white spots sharply outlined or fading into the surrounding normal tissue. The papillae are obliterated and the normal mucous membrane is no longer present. The thickness and elevation are not uniform and give the lesion a variable color.

Leukoplakia is more common in men than in women, the ratio being ten to one. Irritation, if

not the sole cause, certainly is a contributing factor in its development. Tobacco (cigars and pipe more so than cigarettes), syphilis, irritating dentures, and oral infection are the principal sources of irritation. However, leukoplakia has been known to occur when none of these factors is present. In women, leukoplakia of the genitalia is not uncommon. The course of leukoplakia is slow. It usually appears late in life and once having appeared goes through a slow process of development. It may remain quiescent for years, or it may become fissured and verrucosed, and ulceration may occur. These are the danger signals that malignant change is taking place. When persistent ulceration is present histological evidence of epithelioma usually is found.

Treatment depends on the stage of the lesion. Early treatment will in most cases check further progress and prevent development of a cancer. If the patient is a smoker the use of tobacco should be stopped. All irritation must be removed, the teeth should be put in good repair, all infections should be cleared up and spices and alcohol should be omitted from the diet. Large doses of vitamin A (200,000 to 500,000 units daily), or the daily administration of riboflavin or the vitamin B complex may be useful in the treatment of certain forms. If the genitalia are involved estrogens are helpful.

In local treatment the small lesions may be desiccated with monopolar high frequency current. If leukoplakia does not regress under conservative treatment, the patient must be kept under close observation. The development of papillary or ulcerated areas calls for prompt and decisive action. A piece of tissue should be removed for microscopic study. Subsequent treatment depends on the histological findings.

XERODERMA PIGMENTOSUM

Xeroderma pigmentosum is a rare familial disease. It occurs as a marked cutaneous hypersensitivity to the damaging effects of the sun's rays. It manifests itself early in childhood, effecting the exposed surfaces of the body. The first signs appear during the spring and summer following exposure to the sun. It begins with dryness, mild desquamation and freckling. The freckles usually are larger and somewhat darker than normal. There are probably mild forms in which the disease progresses no further than this stage. In a fully developed case the condition is similar to radiodermatitis, atrophic and telangiectatic spots appearing. The disease usually is fully developed by the age of six years. The process often is accompanied by shrinkage of the tissue. When this occurs around the eyelids or mouth, ectropion or atresia may occur with resultant deformity. Usually by the age of ten verrucose and keratotic lesions have appeared. These eventually ulcerate and malignant change takes place. These children rarely reach adult life. The etiology is unknown.

The only treatment for this condition is protection against the sun's rays and local destruction of the verrucous and keratotic lesions when they appear. Parents must be warned that when one child has the disease future offspring are likely to be similarly affected.

ERYTHROPLASIA OF QUEYRAT

Erythroplasia of Queyrat is a relatively rare form of precancerosis. It usually is found on the genitalia, especially on the glans penis. It frequently is a single lesion, a sharply circumscribed bright red, moist, slow growing area without any subjective symptoms. It is diagnosed with difficulty and must be differentiated from extramammary Paget's disease, psoriasis, drug eruption, eczematous dermatitis, and gonorrheal or blennorrhagic dyskeratoses. If untreated, erythroplasia of Queyrat becomes a cancer after a period varying from a few months to many years. Some lesions metastasize very early before there are any indications of the presence of a cancer.

Once the diagnosis is made the treatment should be radical. The lesion must be destroyed thoroughly by surgical and radiologic procedures identical with the treatment of a prickle cell epithelioma.

Many other important precancerous lesions will not be discussed further here. I have attempted to be as brief as possible and to not go into too great detail in describing the clinical appearance and treatment of the precanceroses enumerated above.

In closing I wish to emphasize the fact that in the evaluation of the precanceroses the physician's responsibility is as great as in the management of actually developed cancer. In the proper recognition and treatment of these lesions cancer can, in most instances, be prevented. When regional lymph nodes are palpable or when other circumstances suggest beginning malignant change, the expectant measures must be replaced by more radical treatment, or a biopsy must be done to establish the exact nature of the lesion.

PRESENT STATUS OF THORACIC SURGERY*

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Cases of bronchiectasis provided the stepping stones through the period of development in chest surgery and later a proving grounds for improved ideas and simplified technic that are now approaching standardization in the management of suppurative pulmonary disease requiring resection. An exposition of the present status of thoracic surgery appropriately begins with a perusal of some of the lessons learned in the treatment of patients with this disease.

Follow-up studies have established the fact that practically every sufferer from bronchiectasis who can have resection should have it as the prognosis under this form of treatment is better than by any other form of therapy. Untreated bronchiectasis frequently is a fatal disease. For instance, the exhaustive review by Perry and King shows that bronchiectasis developing before the age of ten is very likely to cause death before forty. The mortality of all cases untreated by radical surgery is around 30 per cent, of which two-fifths occurs within five years of symptomatic onset. These figures are to be contrasted with an operative mortality of 3 per cent in patients treated by resection in the same clinic, by Churchill. We have been fortunate in having no mortality subsequent to pulmonary resection for bronchiectasis in our series of 50 consecutive cases either in the hospital or subsequently. The most significant fact, however, is that cases properly selected and subjected to appropriate resection, have a 90 per cent expectancy of clinical cure.

There have been rapid changes in the technic of lobectomy in the last few years, based upon refinements of bronchography and on increasing knowledge of the anatomic substructure of the lungs. Davenport and I have published a method of bronchography which allows roentgenologic visualization of every bronchial segment and outlining of the exact pattern of the disease so essential to operative guidance in preserving uninvolved lung and in removing diseased tissue. This method is very simple technically and is well adapted to general use. We and others have offered systems of nomenclature designed to reduce the confusion caused by a number of names for each lung subdivision. This nomenclature has been adopted by many thoracic clinics throughout the country. The vascular channels accompanying the various bronchial branches have been identified by dissections at the operating table and in the anatomy room. Blades has recorded a series of such dissections. By virtue of such preoperative knowledge of exactly what should be removed and anatomic knowledge of how to remove it, segmental pneumonectomy as well as hilar dissection has become practicable.

Lung abscess continues to be a serious and life endangering disease. Formerly, the custom was to wait for several months and then establish drainage for those patients who had not died. Among the survivors, a large number was left with irreparable damage to the lungs together with chronic invalidism. At the opposite extreme, certain surgeons have adopted the policy of immediate drainage on making the diagnosis. On the basis of the experience of the Massachusetts General Hospital, as summarized and reported by Sweet, we have adopted a middle course. It is our policy to treat these patients with intensive medical therapy during the first three to six weeks after onset, as 20 per cent will get well spontaneously under this regimen. The others we then drain, as only an additional 10 per cent will heal spontaneously.

After spontaneous healing and healing as a result of drainage are accomplished, about 20 per cent will remain with sequestration requiring subsequent resection. A modification of drainage technic so that only a small opening is made in the pulmonary cavity has been an improvement. In an earlier period, the accepted practice was to unroof widely, and disseminated pneumonitis, embolism and respiratory and mechanical embarrassment were much more common than at present.

Carcinoma of the lung presents one of the most difficult problems with which the thoracic surgeon is confronted. Control or arrest of the disease in its advanced stages has proved almost impossible. This type of malignancy has shown notable resistance to irradiation, and the relief obtained has been so limited that radiation treatment has been discarded as a curative procedure, although it may have a temporarily beneficial palliative effect in certain cases of oat cell carcinoma and undifferentiated carcinoma. X-rays and radium have the same physical effect, but the technical ease of application

*Presented before the 79th Annual Meeting of the West Virginia State Medical Association at Huntington, May 15, 1946.

makes x-ray therapy preferable to radium. The only hope for the patient with carcinoma of the lung lies in the chance that the diagnosis has been made early enough to allow complete surgical removal of the malignant tumor before metastases have occurred.

As technical advances have repeatedly lowered the operative mortality of pneumonectomy, the outlook for the patient with early carcinoma of the lung has become less discouraging. Many cases, unfortunately, are inoperable at the time a diagnosis is made. There is a high frequency of late, remote metastases, especially to the brain, adrenal glands and bones, even years after resection of an apparently early lesion. At the present time, early surgical resection offers the most hopeful therapy available.

The pleomorphic nature of carcinoma of the lung has a considerable bearing upon operability. This cancer occurs in four recognizable morphologic forms: epidermoid carcinoma, 53 per cent; adenocarcinoma, 12 per cent; oat cell carcinoma, 4 per cent; undifferentiated carcinoma, 11 per cent; and a fifth group that cannot be classified, 17 per cent, must be added. Patients with the oat cell and the undifferentiated cancers rarely should be submitted to operation unless for diagnosis, because the fulminating course of the disease is in no way altered thereby. Thirteen of our 14 living and well patients had epidermoid carcinoma, 1 had adenocarcinoma. No patient with oat cell carcinoma or undifferentiated carcinoma has lived for as long as a year after resection. These latter cell types show a palliative response to radiation therapy, and sometimes it is worthwhile in producing significant symptomatic relief for a period of a few months.

Patients with epidermoid carcinoma and adenocarcinoma should be submitted to thoracotomy if successful resection is not known to be precluded by age, poor general condition, extension or metastases. At thoracotomy, gross extension, lymphatic extension into the mediastinum and pleural implantation can be determined with fair accuracy.

In considering the results of carcinoma of the lung, one must scrupulously distinguish and separate the group of bronchial adenomas. These tumors tend to arise in the larger bronchi. They are of slow growth, do not metastasize except occasionally to regional nodes, exhibit a marked tendency to extraluminal growth and bronchial compression, and have a high curability rate. Most cases occur in females, and intermittent bleeding over periods of years with maintenance of good general health is a typical clinical feature. Although symptoms may be controlled for an indefinite time by periodic bronchoscopic removal, many cases eventually will require pulmonary resection because of suppuration distal to the obstruction caused either by occlusion of the bronchus or by pressure from without. They occur with one-twentieth the frequency of cancer, but have at least ten times the curability rate. They may grow to huge size and, together with obstructive bronchiectasis, destroy the entire lung. We have treated 7 such patients, without mortality.

I should like to stress once again the old teaching axiom, "Explain the cause of every persistent cough." The outstanding symptoms of carcinoma of the lung, on the basis of our last 157 microscopically proved cases, are cough, 93 per cent; chest discomfort, 54 per cent; sputum, 53 per cent; hemoptysis, 44 per cent; and wheeze, 14 per cent. Most cases at the onset of cough are early cases. If every patient with a cough of over two weeks' duration had a roentgenogram of the chest made, and those under suspicion by roentgenologic examination were subjected to bronchoscopy, the greatest single step forward in the early diagnosis of both pulmonary cancer and tuberculosis would have been made. In 97 per cent of the cases the diagnosis was suggested by roentgenologic examination and confirmed in 80 per cent of those bronchoscoped.

Our immediate results in treating this disease are: one hospital death in the last 30 consecutive resections, and 28 per cent of the patients who had resections living and well. The total results in 157 consecutive cases in which the diagnosis is proved are 8.9 per cent living and well, all for more than one year, and the longest for more than nine years. The number of survivors at the end of five years will no doubt be small, probably around 3 per cent, as is true also of patients with cancer of the stomach and most other internal cancers except for those of the cervix, rectum and breast. Unsatisfactory, also, is the number of 157 cases diagnosed compared with the 49 cases actually resectable.

Tuberculosis remains, in my opinion, a disease arrestable only by rest. All the medical and surgical measures found useful in treating the disease should be considered as procedures beneficial to the healing process but not of themselves curative. Given all else and lacking prolonged rest, the control of a tuberculous pulmonary infection is difficult or impossible. There is at present a flurry of excitement over lobectomy and pneumonectomy for tuberculosis. This procedure has been applied in isolated cases for many years, with specialized indication such

as tuberculoma or unintentional resection under an erroneous diagnosis of localized lung abscess or bronchiectasis. The results have been encouraging, both with others and with us, and extirpation of fibrotic cavernous tuberculosis often is wise. That it is a proper treatment for exudative tuberculosis, however, is yet to be proved. Although the operation carries a low mortality rate, and the patient can be sent back to the sanatorium, the hospital mortality is but a small part of the total risk entailed.

Suppurative pericarditis should be mentioned briefly. Always secondary to infection elsewhere in the body, it has often been reputed to carry a 100 per cent mortality rate. Several successfully operated cases have been reported within the last few years, including three of our own. Emphasis is placed upon the combination of surgical drainage, immunotherapy and chemotherapy as factors in the increasing number of cases with a successful outcome.

Chronic constrictive pericarditis is among the most satisfactory of all diseases to treat surgically because the results, if good, are so strikingly good. For purpose of illustration, an unusual case is described in which the original pericardial effusion accompanied meningococcus meningitis eleven months previous to the patient's admission to our hospital. He recovered from the acute infection but was thereafter an invalid because of dyspnea, orthopnea and dependent edema. He declared that he would rather be dead than the way he was. In addition to the above, the findings were a suffused face, swollen arm and neck veins, muffled heart sounds, a blood pressure of 90 mm. systolic and 80 mm. diastolic, and an imperceptible radial pulse. As usually happens, his improvement began as soon as opening of the pericardial vise was begun. Two-thirds of the fibrotic pericardium was removed and he left the operating table with a blood pressure of 130 mm. systolic and 80 mm. diastolic. His recovery was uneventful.

A single case, also, is used to illustrate the effectiveness of patent ductus arteriosus ligation. A 25 year old female patient had refused operation until subacute bacterial endocarditis developed one month preoperatively. She was treated with penicillin and division of the ductus. She had one positive blood culture postoperatively; she was treated with penicillin, and has now been well for almost a year. Many similar instances of cure in cases of this syndrome, which was previously almost universally fatal, have now been accumulated.

All of you are familiar with the brilliant work that Blalock, Gross and others recently have done in correcting anomalies of the great vessels about the heart. The improvement in oxygenation following operations for tetralogy of Fallot and double aorta in an increasing number of young patients has been dramatic and encourages further work in the field of cardiac surgery.

Myasthenia gravis has been associated historically with the thymus gland, but what the relationship is, no one knows. Abnormalities of the thymus are commonly found at autopsy in patients who have died of myasthenia gravis. Thymomas cause a syndrome which is very much like that of myasthenia gravis. As early as 1912, Sauerbrook removed an enlarged thymus from a patient with myasthenia gravis. Improvement but not recovery ensued. There has been sporadic surgical interest ever since.

It was not until Viets and Schwab developed the clinical use of prostigmine bromide that it became possible to consider the surgical treatment of patients with myasthenia gravis, under better control of conditions. This drug does temporarily restore neuromuscular transmission of nerve impulses, probably by overcoming a block of curare-like effect at the myoneural junction. It prolongs life but does not cure myasthenia. A constant prostigmine intake is necessary to maintain its effect. Blalock, in 1941, reported a series of 6 cases in which he totally removed the thymus gland and he, as well as Bradshaw, Clagett, Cope, and others, has since added to this number. In none of the first 6 cases was a tumor suspected or found. Three experienced marked relief; 2 were helped and 1 died.

We have tried thymectomy in 7 cases of severe myasthenia gravis. One patient died suddenly, four days after operation, of respiratory paralysis, having ceased to respond to prostigmine. Autopsy did not illuminate further the cause of this fatality. The next patient, a woman aged 22, was bedridden, with a daily prostigmine intake of 180 mg. required in order for her to breathe and swallow. Even so, she often could not swallow for several hours at a time. After thymectomy four and a half years ago, she regained her strength, stopped taking prostigimine and returned to work. Eight months ago she had a mild recurrence and now requires 30 to 45 mg. of prostigimine a day. The thymus was larger than normal, but contained no tumor. The remaining patients have recovered, are from 35 to 70 per cent improved, and feel that they have been

significantly benefitted by the operation. All require from 15 to 45 mg. of prostigmine a day, but in every instance this is to be compared with a preoperative requirement of at least 120 mg. and frequently larger amounts. Whether improvement is temporary or permanent, or whether it is the result of the operation or of spontaneous remission, I do not know. We lack the scientific evidence of cause and effect between thymus and myasthenia gravis that is so clearly evident, for instance, between the pancreas and diabetes or a parathyroid tumor and decalcification with kidney stone. Perhaps the thymus is the cause of this disease, but again perhaps it is only one link in a chain of circumstances which produce a clinical syndrome which we recognize as it paralyzes and eventually kills the patient. We plan to test the surgical procedure in other selected patients free of disease other than myasthenia gravis, and seriously ill. The operative risks are high because of the disease itself, although the procedure is not technically difficult to carry out.

Lesions of the esophagus are among the last to be attacked by the technic of modern surgery. Progress in surgery of the esophagus has been slow for many reasons. It is an inaccessible organ, closely approximated to other vital structures, making the localized carcinoma uncommon and radical resection dangerous. It lacks mobility. Its blood supply has no collateral support. Its walls are devoid of tensile strength and have poor healing qualities. Its lumen contains highly virulent organisms. Such facts have made resection and primary anastomosis to the stomach or jejunum difficult in the upper third and treacherous in the middle and lower thirds. Efforts at end to end esophageal reconstruction have been uniformly unsuccessful except in cases of stricture in the young. Methods and operations have been devised, however, to meet these many problems with increasing effectiveness. They are far from being perfected and further simplification is probable during the development of the workable technics now available. The chief remaining problem at the moment is to receive the patients early enough and in a condition favorable for resection, which, of course, is one of the most important factors influencing results in surgical treatment of cancer generally.

Infection, a hazard second only to inoperability of cancer of the esophagus, has been largely overcome by improvement of technic and general and local use of the chemotherapeutic agents. At least half, and perhaps two-thirds, of the number of esophageal carcinomas could be discovered early and possibly while yet in an operable stage if every patient with difficulty in swallowing were given a drink of barium and then fluoroscoped, those with suspicious findings being esophogoscoped. A similar group of patients has no early symptoms.

The thoracic approach to tumors of the lower and middle third of the esophagus may be made with a wide and direct exposure through the bed of the eighth left rib. Through an opening in the diaphragm, one can mobilize the entire stomach and oftentimes elevate the pylorus through the diaphragmatic hiatus. The lower end of the stomach can be preserved for direct anastomosis with the esophagus or, if preferable, a total gastrectomy can be done prior to an esophagojejunostomy. The possibilities of wide resection and re-anastomosis are the great advantages of this approach. The anastomosis of the esophagus to the stomach or jejunum is like any alimentary tract anastomosis except that fine, interrupted, nonabsorbable stitches should be used to prevent narrowing of the esophageal lumen, as will be caused by a running suture. The upper end of the stomach should be closed completely and the anastomosis of the esophagus made to the anterior or posterior wall of the stomach.

We have explored 57 cases of carcinoma of the esophagus and have been able to resect the lesion in 30 cases. There were 8 hospital deaths. Technical improvement is suggested by the fact that there has been but one hospital death in the last 14 resections (7 per cent). The longest survival to date has been fifty months.

THE FAMILY DOCTOR

It has been a long road from the days of travel afoot, on horseback, by cart, by buggy, to the auto, and perhaps soon the gyroplane. There have been muddy roads, rain, snow, sleet, days and nights without sleep, meals on the table that were never eaten, trips that were never taken, shows that were never seen, family gatherings without you; yes, it has been a life of sacrifice to the call of the sick. Still there has been a richness, a fullness, a sense of service well performed, and for the most part a feeling that it was appreciated.

The life of the general practitioner reaches out into the lives of his patients, into their days of trial, trouble, and suffering, and he brings to many a weary soul something that is more than elixir or pills.

If the general practitioner is the man he should be, he carries to the bedside cheer, courage, and new hope. The trust he engenders in his patient often lifts the load off a tired heart or a troubled mind, and gives peace and rest that accomplishes more than medicine to heal and restore the broken body.—James B. Maple, M. D., in J. Ind. St. Med. Assn.

GASTROINTESTINAL OBSTRUCTION*

By RUSSELL S. McGINNIS, M. D.
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A review of any surgical subject can be conducted with profit. I have nothing new to add and I have freely borrowed from other writers because they clearly outlined physiological, pathological, and mechanical evidence of intestinal obstruction. It is admitted that the death rate is still too high but the reduction in the mortality in the past few years based on these fundamental principles will justify this review.

The management of acute bowel obstructions made but little progress over a period of fifty years. It is only within the past few years that there has been a striking improvement in our methods of managing this serious lesion. The theory of absorption of toxic products from the obstructed loop gave the physician some solace for his poor results but was not productive of a lower morbidity or mortality rate. More and more it is being recognized that mechanical factors are important. The high death rate from obstructions must be differentiated from the mortality of treatment. All of us must agree that any method of treating a serious obstruction, which avoids peritoneal contamination, is all important. Escape of bowel contents, followed by peritonitis, usually means death.

A famous system of surgery in 1864 mentioned the frightful mortality from this disease. Poultices, leeches, castor oil, metallic mercury, and large doses of belladonna were in favor. Surgery was nearly always fatal. Professor Samuel D. Gross[1], in this year, advocated the introduction of a trochar into the distended loop of bowel. Much relief followed when this was carried out on a man obstructed for twenty-one days. However, death followed and autopsy showed a generalized peritonitis and an annular carcinoma of the sigmoid colon. Too many of us can recall similar complications of this lesion even with more modern operative conditions. Some London surgeons recommended the introduction of large quantities of fluids by rectum; this may have reduced some early cases of intussusception, but the overall mortality was little affected.

The work of Hartwell and Hoguet[2] in 1912 pointed to the prolongation of life in dogs with high intestinal obstruction by the subcutaneous administration of saline solution. Gamble[3] and his coworkers in 1925 showed the mechanism by which saline produced such improvement. This cleared up some of the mystery of the so-called toxic theory. Failure of saline to render such striking benefits in low ileal obstructions helped to focus attention on the importance of the mechanical effects of distention.

The concept of toxic effects cannot be entirely discarded, yet experimental work emphasizes the significant interrelationship of intra-enteric tension, viability of the gut wall, and the permeability factor. Loss of viability of the bowel wall permits bacterial migration and peritonitis. Long loops of obstructed bowel are under constant tension and relief of this pressure is the most frequent and difficult problem in therapy. When it is realized that over 8,000 die annually from intestinal obstruction we can appreciate its importance. Herniae and neoplasms too frequently succumb to the effects of distention and obstruction.

The problem as pointed out by Wagensteen[4] may be studied under four categories:

1. Elucidation of the effects of obstruction, particularly the resultant consequences of distention on the bowel wall.
2. Criteria to aid in early recognition of bowel obstruction.
3. Appraisal of remedial agents directed at the relief of obstruction.
4. Consideration of the various types of obstruction.

McIver[5], after a decade's use of saline solution in the management of various types of obstruction, found no tangible evidence of a reduction in the death rate. Moreover, increasing appreciation of the ill effects of distention and improved methods of relieving them has produced a striking improvement in our results. McKittrick and Sarris[6] in 1940 pointed out the lowered mortality from 1934 to 1940. This was the first time in forty years that there was an appreciable decline in the mortality of intestinal obstruction at the Massachusetts General Hospital. Today one of the chief stumbling blocks is the early recognition and proper management of patients with strangulating types of obstruction. In the future earlier recognition and aseptic surgical measures to relieve this type of obstruction offers a field for steady improvement. When the mortality of treatment is reduced to a minimum, the unavoidable deaths, the only real measure of the mortality of obstruction per se will become apparent.

*Presented before the Kanawha Medical Society at Charleston, West Virginia, May 7, 1946.

In a consideration of distention we might ask: What is the character and source of the distention? Distention of an obstructed loop is due to two factors, fluid and gas. As a rule it is true that the fluid content is increased with prolonged obstruction.

What is the source of this fluid? Rowntree[7] has stated that normally 7,000 to 8,000 cubic centimeters of fluid are poured into the intestinal tract daily. The origin of this fluid is as follows: saliva 1500 cc., gastric juices 2000 to 3000 cc., bile 300 to 500 cc., pancreatic juice 500 to 800 cc., and succus entericus 3000 cc. Obstruction, abnormal absorption, and mechanical irritation may increase these amounts.

High intestinal obstructions are associated with greater loss of fluids by vomiting. Low small bowel obstructions may be associated with severe vomiting, but as a rule long stretches of fluid distended loops are more common in the terminal small bowel obstructions. In a way low ileal obstructions tend to approach, clinically, the type of closed loop obstructions. Again we must bear in mind that fluid loss by vomiting in large bowel obstructions is relatively small. In this lesion we approach the type of true closed loop obstruction due to the valvelike action of the ileoceal sphincter. At times reflex vomiting may be seen early but as a rule it is not an outstanding symptom.

Proper management of small bowel obstructions requires a knowledge of the consequences of fluid and electrolyte losses. Properly treated the very dangerous effects of dehydration and disturbances of alkali reserves may be prevented. For a short period investigators thought the beneficial effects of saline in high obstructions were due to its neutralizing or detoxification of the theoretical noxious influences. However, Gamble and Ross[8] in 1925 showed that blood chemical alterations in obstruction such as elevation of the nonprotein nitrogen, decrease in blood chlorides, and an increased carbon dioxide combining power of the blood was caused by the loss of fluid and electrolytes from the stomach and upper part of the small intestine. Saline is probably the best substitute for this type of loss. Thus we recognize that the ill effects of prolonged vomiting are due to loss of substances essential to life and not due to absorption of a noxious toxin.

Intracellular fluid constitutes the largest fraction of the body fluids. When fluids are lost by vomiting in high obstructions the blood plasma is first drawn upon with ensuant concentration of the plasma. The blood, in turn, is replenished from the mobile interstitial or intercellular fluid compartment. Loss of this fluid gives rise to the clinical evidences of dehydration. The intracellular compartment is largely spared. The chloride ion is the main electrolyte in the acid column for both plasma and interstitial fluid. The important difference between plasma and intercellular fluid is the low protein content of the latter. It is known that electrolyte composition of various gastrointestinal secretions is approximately the same as that of blood plasma. Loss of high intestinal secretions means a loss of chloride ions greater than the loss of sodium ions; as a result there is an increase of plasma bicarbonate and alkalosis develops. With the loss of blood chlorides and fluids oliguria results, and with this a retention of nonprotein nitrogen in the blood. With the administration of large quantities of saline the sodium deficit is made up before the chloride loss is corrected and the excess sodium is excreted by the kidneys to restore the normal balance.

Earlier it was stated that gases are important factors in distention of an obstructed loop of bowel. The three possible sources of gaseous distention according to Wagensteen[9] are:

1. Formation of gas as a result of digestive processes.
2. Diffusion of blood gases into intestinal lumen.
3. Passage of swallowed atmospheric air into the intestine.

The gases usually present are nitrogen, oxygen, carbon dioxide, hydrogen, methane, and hydrogen sulphide. Large amounts of gas may result from the fermentation of sugars in the lower bowel. The amount of gas formed as a result of putrefactive action on protein is much less than the fermentative action of bacteria on carbohydrates. Wagensteen[10] has shown that swallowed air constitutes about 70 per cent of the gas in obstruction of the small intestine, 10 to 15 per cent originates by diffusion from the blood into the bowel lumen, and the remaining 10 per cent results from putrefactive and fermentative activity of intestinal bacteria. It is believed that the swallowing of air is intimately connected with respiration and that the negative intrathoracic pressure is responsible for its occurence.

There are essentially two varieties of obstructions: (1) simple obstruction in which the continuity of the bowel alone is blocked; (2) strangulating obstructions which exhibit in addition to interruption of intestinal continuity compromise of the blood supply. The latter group, due to the arrest of

venous outflow from the bowel wall, quickly shows evidence of damage to the intestinal wall. Another factor in this type is loss of blood and this may be a lethal factor. As before described, small bowel obstructions are associated with profound chemical changes due to dehydration and loss of electrolytes. However, in the large bowel the factor of distention is of relatively greater importance. Here, due to the fact that the ileoceal valve does not permit the entrance of fluids from the large bowel into the small bowel, a closed loop type of obstruction results.

The closed intestinal loop has become a means of demonstrating the damaging local effect of increased intraterminal tension. One of the surprising findings has been the damaging effect on the bowel of a relatively low pressure operating over a period of time. Wagensteen [11] summarizes the effects as follows:

1. Increase in the intraluminal content (gas and fluid).
2. Increased motor activity of the bowel.
3. Thinning of the intestinal wall.
4. Decreased absorbtion from the intestinal lumen.
5. Venous stasis in the bowel wall.
6. Impaired viability and injury to the bowel wall.
7. Increased permeability.

Keeping these factors in mind, it would seem evident that rational therapy of any simple type of obstruction should be directed towards decompression of distended loops. The mechanistic conception of the ill effects of most bowel obstructions should be constantly kept in mind and therapy should be instituted at the earliest possible time to avoid serious and often fatal complications. Some cases may lend themselves to decompression by conservative methods such as Levine or Miller-Abbott tube decompression. Other cases may have to be decompressed by operative measures.

What are the criteria that will lead to an early accurate diagnosis? The common complaints of patients with bowel obstruction are: (1) pain; (2) vomiting, and (3) distention.

Pain is caused by increased contractile activity of the bowel. It appears suddenly, increases in intensity, quickly reaches its height, usually lasts for one to three minutes and then subsides, only to reappear at varying intervals. It must be remembered that strangulating obstructions cause a transudation of blood and fluid into the peritoneal cavity; this produces a more continuous type of pain and also gives rise to peritoneal tenderness and often rebound pain. Concomitant with the recurrent pains, noises varying in quality may be heard over the abdomen with a stethoscope. These sounds may be metallic in character if the bowel contains considerable gas, while an admixture of gas and fluid is indicated by bubbling gurgling noises. These sounds are best heard when the pains are most severe and establish the painful contractions as intestinal colic.

Borborygmi may be heard in other acute abdominal disorders but there is no intimate time relationship to the pains that occur when the cramp is of intestinal origin. Stated in another way, the loudest noises are heard at the peak of the pains. We practically never see intestinal obstruction without intestinal colic; however, pyloric obstructions and obstructions of the efferent loop of a gastrojejunal stoma are very rarely associated with colicky pains. Is the intestinal colic due to an actual block in the bowel, to enterocolitis, food allergy, or lead poisoning? A good history and general symptoms such as vomiting, distention, fever, and diarrhea will aid in the diagnosis.

Vomiting. One of the characteristics of obstructing vomiting is that it tends to be more frequent and abundant. Feculent vomiting is uniformly caused by small bowel obstruction while intestinal colic associated with distention without vomiting is usually due to obstruction of the large bowel.

Distention. Gastric drainage in large bowel obstructions shows the features of gastric or biliary contents and in small bowel obstructions the fluid is yellowish-brown with stercoraceous odor peculiar to the lower parts of the small bowel. It is apparent that a competent ileocecal sphincter is responsible for the different clinical picture seen in large and small bowel obstructions. In the early cases the general appearance of the patient may be excellent and until late in the disease, when dehydration or infection have developed, his facial appearance belies the presence of a potentially serious ailment. Strangulating obstructions may show an elevation of pulse rate and if the blood loss has been marked the symptoms of shock may be present. Laboratory aids may be of little specific help in diagnosis. If vomiting has been excessive, hemoconcentration occurs and increased values for hemoglobin, red cells, and leukocytes may be found. Strangulating

obstructions produce a much greater leukocyte rise. With high small bowel obstructions and great fluid loss there may be, after a period of forty-eight to seventy-two hours, an elevation of the nonprotein nitrogen, a decrease in the blood chlorides, and an increase of the carbon dioxide combining power of the blood. Scout films of the abdomen taken in different positions usually give reliable information as to the degree, extent, and location of distended loops of bowel. Flat films of the normal abdomen rarely show gas in the small bowel. Strong purgative drugs may cause some gas in the small bowel and this finding may be present in children up to two or three years of age. Stasis of the small bowel, whether it be paralytic or mechanical, causes gas and fluid to separate out and gas is visualized. The stethoscope over the abdomen rarely shows gas in the small bowel. The stethoscope will aid in determining whether the stasis is mechanical or paralytic in origin. The typical appearance of gaseous shadows in obstructed small bowel may be described as a stepladder arrangement of the coils. The mucosal folds of the jejunum lend it a feathery appearance. The haustral markings serve to identify the large bowel. Lack of the mucosal folds of the ileum give it a relatively blank or characterless appearance. The greatest difficulty arises in differentiating, in border line cases, the jejunum from the colon. The giving of a thin mixture of barium by rectum will differentiate the large from the small bowel. An annular carcinoma at the beginning of the ascending colon is often not associated with early distention. The more chronic type of obstruction is associated with greater fluid content of the bowel. Early obstructions reveal gas and this sign may appear after four to six hours.

How should the films be taken? Pictures taken with the patient in the supine position gives the best information as to the pattern of arrangement of the distended loops. The loops may appear larger than they really are but the exposure permits the involved loops to be through in continuity. Pictures in the erect bowel require that a preliminary evacuant enema should be given and the scout films then taken. If the enema has been effective no gas should be seen in the colon in complete types of obstruction; if present, it indicates a partial small bowel block.

We have now recognized the location of the obstruction, whether it is complete or incomplete, but the problem is to recognize how it is obstructed. Is it a simple obstruction, presenting only an interference with the continuity of the bowel alone, or is it a strangulating obstruction which, in addition to being blocked, also has a damaged blood supply? We should make every effort to distinguish the two types. It must be admitted there are no infallible signs. The simple type, early in the disease, may show no tenderness of the abdominal wall. Later, when the bowel weeps, there may be some tenderness. I would like to point out that during a colicky pain there is often a transient reflex rigidity of the overlying abdominal musculature. In strangulating obstructions the return flow of the blood through the mesenteric veins is interferred with, the gut becomes infarcted, and a serosanguineous fluid escapes into the peritoneal cavity causing it to become sensitive. In a large infarcted area a tender mass may develop and it may, at times be palpated through the abdomen, vagina, or rectum. Intussusception is the only type of strangulating obstruction which is not associated with a rigid or tender abdomen. This is easily understood because the infarcted segment is within the normal ensheathing layer. The blood liberated by strangulating obstructions is a true peritoneal irritant but is not to be compared to the irritating properties of hydrochloric acid that escapes in a perforation of the duodenum or stomach. A white blood study may show a distinct leukocyte rise in this condition. Peritoneal aspiration has been used by some to identify the presence of blood or bloody fluid. With the above criteria fewer cases should be treated expectantly. It must not be forgotten that late strangulating obstructions may show little evidence of colic, and the physician may have to spend some time at the bedside carefully auscultating the abdomen for this important evidence of mechanical block of the bowel.

In the usual strangulating obstructions there are ordinarily two varieties: (1) strangulation of the torsioned loop, and (2) simple obstruction in the intestine proximal to the site of strangulation. At times there will be little or no evidence of gaseous distention on the x-ray film. This is explained by (a) the agents responsible for the compromise of the blood flow to and from the bowel do not include the lumen, (b) transportation is possible through a strangulated loop of bowel which at operation gives every evidence of having lost its viability. In mesenteric thrombosis the distention and the manifest evidence of obstruction are frequently lacking.

As previously stated, until a few years ago the universal complaint was that the mortality of operation for intestinal obstruction had shown little or no

improvement since the beginning of abdominal surgery. It is apparent that the high death rate in the past has been due in considerable measure to procrastination. The admonition of early operation needs re-emphasis today for many kinds of bowel obstruction. The chief stumbling block to a lowering of mortality is a strangulating type of obstruction. In some reported series strangulating obstructions cause 50 per cent of the mortality. In a series of cases reported by a number of authors from 1907 to 1932 the highest mortality was 60 per cent and the lowest 15 per cent. Of seventeen surgeons reporting mortality the majority were above 40 per cent. Contrast this to the improvement from 1933 to 1942, of seven series of cases ranging in mortality from 13 to 21.8 per cent. Wagensteen[12] reported a series of 190 obstructions with the mortality of 14.7 per cent. Decompression was achieved by suction in 44 per cent; the mortality in the suction group without operation was 7.8 per cent. Some authors have pointed out that obstructed patients without abdominal scars from previous operations run a greater risk than patients operated upon previously; this is due to the greater confusion hedging about the diagnostic problem.

Special obstructions may be considered under the following headings:

I. Congenital atresia of the intestine.

This is a relatively rare lesion, according to some authorities, occurring once in every 20,000 infants. Davis and Paynter[13] in a series of 392 cases found the anatomical location of atresia as follows:

Duodenum above the papilla	59	Ileum and cecum	101
Duodenum below the papilla	75	Colon	39
Duodenum	69	Multiple areas	67

The vomitus of suprapapillary obstructions shows no bile and comes on shortly after birth. The vomiting of congential hypertrophic stenosis usually appears after the second or third week. Occlusions at the papilla may show no bile either in the vomitus or stool. A thin mixture of barium may be given and the location of the block determined. The prognosis is poor. These infants tolerate surgery poorly and the technical performance of anastomoses is quite difficult. Vitamin K should be given and in lesions at or above the ampulla a duodenojejunostomy is preferable to a gastrojejunostomy.

II. Imperforate anus.

This occurs once in 5,000 births and is usually associated with other embryological defects. The treatment depends on the conditions found; cases that have only a thin diaphragm-like septum may be incised and dilated. Most cases can be reached by a perineal dissection. A colostomy may be used in the exceptional case where the hind gut cannot be reached through the perineum. The rectum should be brought down to the anal skin and be frequently dilated or stenosis may follow.

III. Obstructions due to tumors and strictures.

These are occasionally seen. Lymphogranuloma venerum may cause rectal strictures while a nonspecific type of ileitis, the so-called cicatrizing enteritis, is the most likely granulomatous lesion to be found in strictures of the small bowel. Diverticulitis may be a causative factor in the sigmoid area. The various types of benign tumors such as lipoma, myoma, fibroma, adenoma, and angioma may produce obstruction by an internal block in the lumen or by causing intussusception. Of the malignant tumors, Nothnagel[14] states that 2.5 per cent occur in the small bowel, 97 per cent in the large bowel and rectum. One half of the lower bowel cancers are found in the low sigmoid and rectal areas; careful digital examination will often give us the diagnosis. Any of these large bowel growths may cause obstruction. The pelvic colon is the most frequent offender, 63 per cent, and the lesions of the cecum are only 25 per cent of the cases.

IV. Obturator obstruction due to gallstones.

This type of obstruction occurs more frequently in women. An obstruction which remits and recurs should suggest this type of obstruction. A history of gallbladder disease may help in arriving at a diagnosis. X-rays may show the offending object, and air in the biliary passages will suggest a fistula between these structures and the gut. At operation the stone may be pushed upward and the object removed through a transverse incision; however, it is better if it can be pushed downward in healthier bowel and removed. The mortality has been reported as about 50 per cent. I have had experience with only three cases and all survived. Any foreign body may produce obturator obstruction. The Ascaris is thought to secrete a substance that stimulates the rate and tone of intestinal contractions.

V. Fecal obstruction of the bowel.

Hirschsprung's disease is the most frequent cause of fecal obstruction of the bowel. Treatment is not very satisfactory, but frequent rectal dilatations, colonic irrigations, and a bilateral lumbar sympathectomy is the method of choice. Rankin and

Learmonth[15] have emphasized that some time will be required for a partial or complete readjustment of the organic changes in the colon and rectum to the altered neuromuscular control. Satisfactory defecation begins sufficiently soon to obviate a long course of medical treatment. Colostomies may be tried. Resection of the involved segment or short circuiting procedures have not been successful. A spinal anesthetic may be given as a therapeutic test; reduction in the lumen of the bowel would suggest that sympathectomy would be the treatment of choice.

VI. Obstruction by external compression.

This may occur where the bowel is fixed. It is most frequent in the pelvic colon, the retroperitoneal duodenum, and in the terminal ileum. Malignant lesions of the pelvic organs, pregnancy, and the plaster of Paris induration resulting from parametritis and cellulitis are the most frequent offenders. Arteriomesenteric obstruction can usually be relieved by dividing adhesions. Duodenojejunostomy is much less done. Patients suffering from this condition may suffer from periodic attacks of vomiting.

All surgeons are acutely aware of the frequency and seriousness of uncorrected acute gastric dilatations. It is a frequent postoperative finding and may follow hyperextension of the spine for the treatment of fractures. There may be present two forms, (1) the compression type associated with great fluid and gas, and (2) the type associated with dehydration and dechlorination that occurs in debilitated patients. Some of these may have shown little vomiting. Gastric drainage done early and replacement of fluid and electrolyte losses will usually correct the condition.

VII. Intestinal obstruction due to external hernia.

This is the largest group, it represents 40 to 45 per cent of obstructions. Femoral hernia is at the top in order of frequency and in view of the much higher incidence in women they will much outrank the males in this type of obstruction. A patient showing signs of intestinal obstruction, but showing no evidence of hernia other than tenderness at one of the hernial orifices probably has a Richter's type of hernia; in this type only a part of the bowel wall is constricted. The various types of hernia need not be considered in this discussion. The symptoms and pathology are the same as in other obstructions where there is early circulatory damage. A large series of obstructions showed strangulating hernia are operated upon, as an average, within thirty-one hours while other types of small bowel obstructions were operated upon at the end of seventy-six hours. This early recognition is reflected in overall mortality of 14 per cent, or about one-third of that found in the other group of small bowel obstructions.

VIII. Volvulus.

This constitutes only a small percentage of obstructions. It is most often found in the sigmoid, the cecum, and small intestine. The signs of mechanical obstruction stand out. Bloody mucus may be expelled. When operated upon early detorsion should be done. It must be realized that even then at least one-third of the cases recur. Due to late recognition the mortality is high, at least 75 to 80 per cent in the cases where gangrene has developed.

IX. Intussusception.

This produces 20 per cent of obstructions and at least 75 per cent of this group is found in children under two years of age. Pediatricians, as a rule, see this type of case first. The ileocecal type is most common; it usually occurs in healthy children and may follow a change in diet. This change may initiate increased peristalsis. Cases occurring in the older age group are caused in 40 per cent by tumors of various types. These are usually benign. The greatest change is in the intussesceptum. It is engorged with blood, stiff and edematous, and blood is extravasated into the lumen. This is the source of the blood appearing in the stool. Clinical picture is characterized by pain, assumption of the knee-chest position, and tossing about in grotesque positions. This is followed by a period of relief which may last longer than the two or three minute period of agonizing pains. Vomiting may come early, stop for twelve to twenty-four hours, and this factor usually produces delay. Blood is present in the stools in 97 per cent of cases. Enteric invaginations may show no blood. A high percentage of cases show a palpable tumor. The stools have little odor and are not mixed with the blood as in enterocolitis. This is a strangulating type of obstruction and the mortality rises rapidly after twenty-four or thirty-six hours. Very early cases may be reduced by a barium enema and gentle manipulation under fluoroscopic control.

X. Adhesions.

Intestinal obstruction due to adhesions are found in about 35 to 40 per cent of cases. As a general rule if the small bowel is involved and the obstruction is of the nonstrangulating type decompression by tube will correct a fair percentage of cases. If

no operative scars are present in the abdominal wall suction should not be persisted in too long.

XI. Obstruction in gastrojejunostomy stoma.

A type of obstruction occurring after gastrojejunostomy and, as a rule, not diagnosed except at autopsy is due to blockage of the afferent stoma. This, in gastric resections, always means an obstruction of the closed loop type. The duodenal stump is closed and obstruction of afferent stoma soon causes a great increase in the intraluminal tension. Due to the fact that only slight pressure increases here cause early venous obliteration and arterial damage; gangrene with high fever, prostration, and death soon follows. It can be corrected by a tube placed in the afferent loop at the time of surgery.

A discussion of treatment will be brief. As before indicated, large bowel obstructions are emergencies and early surgery, a cecostomy or preferably a transverse colostomy, will be indicated.

Simple small bowel obstructions are not surgical emergencies. Correction of dehydration and electrolyte balance along with decompression by the Miller-Abbott tube is the preferred treatment. If the tube cannot be passed and simple stomach siphonage does not improve the condition surgery should be done. In the very sick an enterostomy (aseptically performed) may be all that is necessary; short circuiting procedures or an enterectomy of the entire offending loops may be done. Enterostomy is, as a rule, the procedure of choice. This type of decompression may save a life and in many cases effect lasting relief. It cannot be emphasized too much that these procedures must be done with the strictest asepsis. Technical errors in operative procedures would raise the mortality of treatment to prohibitive levels. To the mortality of the disease itself would be added the deaths from a general peritonitis.

I have inspected 100 cases of various types of obstruction that have been treated at St. Luke's Hospital, Cleveland, Ohio, since 1939. These cases were selected at random by a number of different surgeons. The small bowel obstructions reveal a mortality of 31 per cent and the large bowel obstructions, a mortality of 37 per cent. I believe this mortality is much higher than it should be. In the small bowel obstructions there are a number of strangulation herniae that came in after 48 hours. Some of the other cases could unquestionably have been saved by earlier recognition prior to being hospitalized. The 37 per cent mortality in large bowel obstructions is likewise due to delay on the part of the patient in calling a physician and in many cases due to persistent attempts on the part of the family doctors to get results by enemas. Most of these obstructions were due to left-sided neoplasms and in some cases peritonitis was present when the patients were admitted to the hospital. I have the very definite impression that for the last four years our general results have been much improved due to the application of principles as above outlined.

SUMMARY

Attempt has been made to avoid the very high mortality that has been present in intestinal obstruction in all hospitals for a long period of time. The recognition of the ill effects of prolonged vomiting and the benefits obtained by the administration of saline are important factors in the lowering of mortality of high small bowel obstructions. The recognition that large bowel obstructions should be regarded as emergencies is quite important because this represents a closed loop type of obstruction and no relief is possible without some type of colostomy. This should be done early and a transverse colostomy is much safer than a cecostomy. The widespread recognition of the importance of early decompression of any obstructed loop of bowel, large or small, will very definitely improve our results. In simpler obstruction of the small bowel many cases will be relieved by the passage of the Miller-Abbott tube. Surgery should not be long delayed if this method is ineffective. Strangulating obstructions of any segment of the bowel are grave emergencies and should be treated by early surgery and blood transfusions.

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PHYSICAL REHABILITATION IN CIVILIAN PRACTICE*

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It is undoubtdly a fact that we are now facing the most stupendous problem in rehabilitation which has ever existed in the history of the world. The number of war injuries sustained in the Army and Navy and also in industrial and other civilian pursuits is the largest our country has ever known. Fortunately, thought has been given to problems of post-war rehabilitation. In July, 1943, the late President Roosevelt said in a radio address: "We must this time have plans ready—instead of waiting to do a hasty, inefficient and ill-considered job at the last moment." At that time, he outlined a six-point program which included as one item "improved and liberalized provisions for hospitalization, rehabilitation and medical care of disabled members of the armed forces and merchant marine." Former President Herbert Hoover has said: "I have always felt it of paramount concern to rehabilitate human beings; to return a man or woman to productive citizenry is an urgent need and a service of the highest order to the social and economic welfare of our country."

Rehabilitation includes the employment of physical medicine, psychosocial adjustment and vocational re-training in an attempt to achieve the maximal function and adjustment of the individual and to prepare him physically, mentally, socially and vocationally for the fullest possible life compatible with his abilities and disabilities. It fills the gap between the customary end point of medical care and the real necessities of most patients. Rehabilitation has been called "the much neglected third phase of medicine." Rehabilitation begins when a man is first injured or becomes ill and ends *only* when he is completely restored to maximal activity.

There is need for better scientific medical supervision of the convalescent phase of medical care. There is extreme need for the establishment of many more community rehabilitation centers. Proper medical supervision during rehabilitation of sick or disabled patients is best provided by physicians who are qualified in the growing specialty of physical medicine.

It is becoming increasingly apparent that physical medicine is expanding rapidly and that in the future, it will encompass a broad phase of medical practice that is at present considerably neglected. Physical medicine includes the employment of the physical and other effective properties of ultraviolet and infra red radiation, heat, cold, water, electricity, massage, manipulation, exercise and mechanical devices, either for diagnosis or for physical and occupational therapy or for both. Physical medicine can really be thought of as applied biophysics. It has now become a distinct and important medical specialty. Physical medicine includes: (1) definitive physical therapy, (2) the employment of physical agents for diagnosis, (3) occupational therapy, and (4) physical rehabilitation. Recently, the Council on Physical Medicine of the American Medical Association voted to sponsor the designation "physiatrist" to describe the physician who specializes in physical medicine. The term "physiatrist" stems from two Greek words, "physis" (pertaining to physical phenomena) and "iatreia" (pertaining to a healer or physician). Thus, a physiatrist is a physician who employs physical agents.

Definitive physical therapy and the employment of physical agents for diagnosis are developing speedily as our biophysicists and engineers provide an ever-increasing number of therapeutic and diagnostic devices for the use of the physician.

Occupational therapy has been defined as comprising any activity, mental or physical, definitely prescribed and guided for the distinct purpose of contributing to the hastening of recovery from disease or injury and of assisting in the social and institutional adjustment of persons requiring long and indefinite periods of hospitalization. Like physical therapy, occupational therapy is expanding rapidly and seems to be breaking away from its pre-occupation with arts and crafts and to be extending into a wider field including new prevocational, avocational and vocational pursuits.

We are now far past the time when physicians should accept only biochemical procedures and not accept biophysical procedures in medicine. Alan Gregg, director of medical sciences in the Rockefeller Foundation, has said: "Among my major hopes, let me record the wish that biophysics may be soon recognized as the brother of biochemistry . . . One of the natural outgrowths of such a preclinical science might be the now long overdue development of physical therapy in this country." This hope is now beginning to be realized, and the modern physician must understand immediately that one who

*Presented before the 79th Annual Meeting of the West Virginia State Medical Association at Huntington, May 14, 1946.

employs only chemical agents in medicine and neglects the use of the newer physical procedures will soon be far behind the times.

Recognizing the great importance of physical medicine, our famed elder statesman and philanthropist, Mr. Bernard M. Baruch, established in 1943 the Baruch Committee on Physical Medicine. The purpose of this committee was to advance the science of physical medicine. The original survey committee made the following specific recommendations regarding the chief needs for proper development of physical medicine. It advised the provision of: (1) an adequate supply of physicians who can teach and use physical medicine, (2) more extensive basic and clinical research in physical medicine, and (3) proper use of physical medicine in relation to wartime rehabilitation and peacetime physical preparedness. One of the original recommendations of the survey committee was that there be adequate promotion of wartime and postwar physical rehabilitation. Therefore, it established in May, 1944, a special Committee on War and Postwar Rehabilitation and Reconditioning. In accordance with the original plan of the Baruch Committee, grants were made to certain large medical centers to permit them to establish teaching and research in physical medicine. These projects are now all under way.

It has been my privilege to serve as director of the Baruch Committee on Physical Medicine since its organization. Early in 1945, the Committee recognized that much had been learned in the rehabilitation programs of the armed forces which would be of value for physically and emotionally disabled civilians. Therefore, a subcommittee was appointed to prepare a simple basic blueprint which would translate war experiences into civilian application. To accomplish this purpose, the following subcommittee was appointed: Chairman, Dr. Howard Rusk, chief of Convalescent Division, Office of the Air Surgeon, Dr. George G. Deaver, medical director of the Institute for the Crippled and Disabled; Mr. Lawrence J. Linck, executive director of the National Society for Crippled Children and Adults; Dr. Carl M. Peterson, secretary of the Council on Industrial Health, American Medical Association; Mr. Michael J. Shortley, director, Office of Vocational Rehabilitation, Federal Security Agency and Dr. Alfred R. Shands, Jr., chief, Surgical Branch, Office of the Air Surgeon.

This very able committee published its final report on May 9, 1946, in the hope that it would be of aid to communities, medical schools, civic groups or other organizations interested in establishing community rehabilitation centers. The committee recognized that it could prepare only a generalized blueprint and stated that in considering community plans, the facilities, personnel and problems in the community must be given prime consideration and the basic plan must be modified to meet the specific needs of the community. The plans, organizational charts and personnel needs which the committee has described have been derived from the experience in the armed forces and from the experience in existing rehabilitation facilities. It is the hope of the Baruch Committee on Physical Medicine that this new report will be of assistance to the medical profession and to the community in meeting the challenge of this great problem.

There is need for community rehabilitation services and centers to provide the necessary care and rehabilitation for the estimated 23,000,000 persons in the United States who are handicapped because of disease, injury, maladjustment or former wars. The following examples indicate graphically the need for the expansion if physical rehabilitation throughout the United States.

a. In 1940 there were 6,500,000 disabled males between the ages of 15 and 64 years in the United States. When demobilization is completed and the disabled veteran returns to his community, it will mean a total of approximately 8,000,000 males of working age who are disabled to the point of requiring physical or vocational rehabilitation or special placement aids, if they are to be employed successfully. This represents one person in sixteen in our general population, and one in seven in our male working population.

b. In World War II there were approximately 17,000 amputations in the Army. During the same period there were 120,000 major amputations in our civilian population, made necessary by disease and accident.

c. The Office of Vocational Rehabilitation has demonstrated the economic rewards of rehabilitation. Of the 43,997 persons who received vocational or physical rehabilitation under this agency in 1944, 22 per cent, or more than 10,000, never had been gainfully employed, and nearly 90 per cent, or nearly 40,000, had not been employed at the time they started their rehabilitation. The average annual wage of the entire group prior to rehabilitation was $148. After rehabilitation, the average annual wage of the group increased to $1,768. The total earnings of the entire group

rose from $6,510,556 to $77,786,696. Prior to rehabilitation, the majority of these persons relied on general public assistance, not only for the disabled individual but also for his family. The annual cost of this assistance to the taxpayer was from $300 to $500 per case, but the total cost of rehabilitation averaged only $300 per case.

The 43,997 persons rehabilitated under the Office of Vocational Rehabilitation program are, by the estimates of that office, but a twentieth of the number who need such service

d. During the war 83 per cent of our nation's industries employed handicapped workers. Those industries report that among the handicapped there was a much smaller labor turnover, less absenteeism, fewer accidents and production rates equal to, or higher than, those obtained with nonhandicapped workers. Many employers, before this vast experience with handicapped employees, had a fear that increased accident rates might result from employment of handicapped workers. The industrial accident rate of eighty-seven of the great industrial plants in America, each having from fifty to 12,000 handicapped employees, has proved this fear to be unwarranted. Their reports show that 56 per cent found the accident rate of the handicapped lower than that of the able-bodied; 42 per cent found the rate the same as for the able-bodied, and only 2 per cent stated it was higher.

A statement of policy issued by the Association of Casualty and Surety Executives, composed of executives of sixty-five major insurance and surety companies, discloses explicitly that the rate for workmen's compensation insurance to cover employment of disabled workers is no higher than that which applies to employment of able-bodied workers.

e. It has been estimated by experts in the field of rehabilitation and re-training that up to 97 per cent of all handicapped persons can be rehabilitated to the extent of gainful employment. Comprehensive rehabilitation is the third phase of medical care which, by means of an integrated program of physical rehabilitation, psychosocial treatment and adjustment and vocational re-training, takes the man from the bed to the job.

Community rehabilitation centers may very fittingly be established as "living memorials" to provide lasting benefits to humanity. Rehabilitation services and rehabilitation centers are community projects, and all the existing facilities and organizations in the community must be fully utilized. The rehabilitation center must be a part of the community rather than a thing within it. It is necessary to know what the community has to offer in terms of personnel and physical equipment. It must be a program of integration, and duplication should be avoided. In the planning of a community rehabilitation center, existing facilities and local conditions are the primary factors in governing the organization.

In the ideal community rehabilitation center envisioned by our committee, patients would arise from a number of sources. The committee envisions a traveling field clinic to provide rehabilitation service in rural areas, and this field clinic could send certain patients to the rehabilitation center. Other sources of patients would be the physician, self-reference, social and governmental agencies, industry, labor and the civilian hospital.

The committee believes that the center itself should be divided into an evaluation and program placement service, and into a service in which actual rehabilitation is accomplished. The evaluation and placement service would be divided into three sections: one for medical evaluation, one for psychosocial evaluation and one for vocational testing and evaluation. Consultants from this service would go to the civilian hospital to provide a rehabilitation consultation service and to provide hospitalized patients with an "in-bed" rehabilitation program.

After the disabled person had been properly evaluated with regard to his disabilities and abilities, he would proceed to the actual treatment program, under which he would receive proper physical rehabilitation, psychosocial readjustment, and vocational testing and training. The physical medicine program would include physical therapy, occupational therapy and physical re-training for orthopedic, medical, neurologic and other types of patients. In the psychosocial program actual treatment and adjustment would be provided, and in the vocational education program there would be provision for vocational guidance and testing, vocational re-training and special educational projects.

Finally, our committee envisions the need for a laboratory of research in rehabilitation in conjunction with such a center. It is also of the opinion that in conjunction with a rehabilitation center there should be a dormitory for patients who are unable to travel.

This program would be an active and living program which would tend to combat any ten-

dency toward chronic invalidism. All patients would be guided toward self-sufficiency and independence. The more fortunate would be returned to full employment, those with limited disabilities would be returned to selective employment, still more seriously handicapped persons would be at least provided with the opportunity for self-support through the medium of the sheltered workshop, and the extremely handicapped persons could be at least provided with a homebound program of activities which would help to make them self-sufficient.

In connection with such a center, there would be provision for out-patient guidance and follow-up service.

The ideal rehabilitation center should have a well organized and well trained staff of workers. There should be a board of governors, an advisory committee, an administrator and two chief divisions: the division of medical services and the division of vocational services. The medical director should have a rehabilitation consultation and a medical consultation service, and the medical services division should be divided into two branches: the physical medicine branch and the psychosocial branch. The physical medicine branch should be divided further into three sections: the section on occupational therapy, the section on physical therapy and the section on physical education. The psychosocial branch should be divided into two sections: the section on clinical psychology and the social service section. The vocational services division should be headed by a qualified vocational director and should have two branches: a vocational guidance and testing branch and a special education branch. This division should operate also a sheltered workshop, a curative workshop, and a homebound program.

In the recent manpower crisis, the disabled persons have proved their ability to produce. Both the disabled veteran and the disabled civilian should have the right to work. It is imperative that all physicians and all communities give careful consideration to the important task of providing adequate facilities for convalescent care and adequate means for helping our disabled fellowmen to become self-supporting, self-respecting citizens. The rehabilitation of our handicapped people presents a tremendous challenge. The task is enormous, but if its accomplishment is attempted, our efforts should be repaid in huge dividends of health, happiness, opportunity and productivity in the community and in the nation.

AN ATTEMPT TO ESTABLISH A MEDICAL COLLEGE IN WHEELING IN 1831

By FREDERICK C. WAITE, Ph. D.,
Dover, New Hampshire

Wheeling was the county seat of Ohio County, in Virginia, in 1831. It had a population of over five thousand as shown by the federal census of 1830, and had more white residents than any city in Virginia except Richmond. Virginia then had a population of more than 280,000, and two medical colleges. Two were founded in Winchester in 1826, but one suspended in 1829 to be revived later. The other was a feeble institution. The Medical Department of the University of Virginia was established in 1827 at Charlottesville. Each of these towns was smaller than Wheeling. There was a medical college in Cincinnati, another in Lexington, Kentucky, one in Washington, two in Baltimore, and two in Philadelphia. Inasmuch as there was no medical college within about two hundred miles of Wheeling, there was room for one in western Virginia, which could be expected to attract students not only from that state but also from western Pennsylvania and eastern Ohio.

John Cook Bennett studied medicine under the preceptorship of Dr. Samuel P. Hildreth, of Marietta, Ohio, who was an uncle by marriage, and was licensed to practice medicine by the Medical Society of the Twelfth District of Ohio on November 1, 1825. He practiced in several towns in southeastern Ohio from 1825 to 1830, the last being Barnesville in Belmont County. He also preached occasionally, first in the Methodist Church, and, after 1830, in the Disciple Church.

He showed a proclivity to establish educational institutions, an endeavor that continued for more than fifteen years. He attempted to get a charter for a university in Ohio in 1829, but lost by a narrow margin due to political differences. He was a Jacksonian Democrat while the majority of the members of the Ohio legislature in that session were Whigs. His going to Virginia was evidently with the intention of repeating this effort in a state where the legislature contained fewer Whigs.

He left Ohio about October 1, 1830, and went to Wheeling where he arranged to locate for practice. He then went to the Medical department of McGill University, in Montreal, to attend a session of medical lectures from late October, 1830, to mid-January, 1831. This was his first attendance

at a medical college, his previous medical education having been entirely under a preceptor. His going more than five hundred miles to attend medical lectures, when there were medical colleges nearer Wheeling, was probably at the advice of his professional partner in practice at Barnesville, who was a Scotchman educated in Glasgow. All of the medical professors at Montreal at that time were graduates of universities in Scotland.

Doctor Bennett returned to Wheeling late in January, 1831. He was at that time something over twenty-seven years of age. The following document in his handwriting was received in Richmond on January 27, 1831:

"To the General Assembly of Virginia: The memorial of the subscribers, physicians, surgeons and others, citizens of Wheeling and elsewhere, respectfully represents that there is great need of a Medical School at some point in this section of the country; there being none nearer than Baltimore and Washington City on the East, and Cincinnati and Lexington on the West; and that, in the opinion of your memorialists, there is no more eligible site for such school than Wheeling. Your memorialists have satisfactory assurances that, were a Medical School instituted here, having competent Professors, (and no doubt is entertained that such can be obtained), it would receive a liberal patronage. Your memorialists further state that, they entertain the opinion that it may be found practical to establish, in connection with a Medical School, a Literary Department for the education of youth. Your memorialists therefore pray for the passage of a law incorporating the trustees of Wheeling University, with authority to establish a Medical, and such other school, or schools, for the teaching of Literature and the Sciences, as they shall deem advisable; and with power to take and hold such real and personal estate as shall be necessary, or useful for such University. And your memorialists will ever pray. " This document bears the signatures of eighty-eight men.[1]

About half of the signers have been identified as to vocation and found to include bankers, lawyers, manufacturers, merchants, and at least ten physicians. The signatures of most of the physicians are found at the top of the list, headed by the older physicians of Wheeling. Doctor Bennett's name is sixth on the list. The petition ignored the recently founded medical colleges at Charlottesville and Winchester.

The General Assembly on March 23, 1831, enacted a bill incorporating twenty-one men as "a body politic by the name and style of the President and Trustees of Wheeling University." The bill contained the provisions usually found in charters of educational institutions of that era, including "full power and authority to confer or cause to be conferred degrees." It also set the date of May 2, 1831, for the incorporators to meet and organize as trustees.[2]

The trustees included a bank president, a circuit judge, two lawyers, two manufacturers, two merchants, seven physicians, and six men whose vocations have not been identified. The seven identified physicians were: John C. Campbell (1797—about 1870), born in Ireland, and studied medicine in Glasgow and Dublin. (The statement that he graduated in medicine at Dartmouth is not borne out by the alumni catalogue of that institution. He was also a practicing lawyer); James Walton Clemens (1795-1846), A. B., 1818, Washington College, attended Medical Department of the University of Pennsylvania in 1823-24; John Eoff (1788-1859) (erroneously printed Goff on the Charter); Joshua Morton (1783-1839), studied medicine at Harvard Medical School; James Tanner (1796-1858) M.D., 1823, University of Maryland; Archibald L. Todd (1798-1883), M.D., 1826, Transylvania University; and Martin Luther Todd (1788-1866).[3]

Doctor Bennett was not one of the incorporators or trustees, possibly because he had not resided in Virginia long enough to acquire citizenship. The internal evidence in the petition shows that he was the leader in the endeavor. This is substantiated by an item in a newspaper in the county in Ohio, where he had lately practiced, which reads: "Dr. Bennett has succeeded in establishing a college at Wheeling by an act of the legislature of Virginia."[4]

Ten weeks later the same newspaper printed the following item: "Wheeling Eye and Ear Infirmary has been established by Dr. J. C. Bennett."[5] Seven weeks later appeared the important statement: "Dr. J. C. Bennett has been appointed Professor of Obstetrics and President of the Washington Medical College of Virginia."[6] (The term "president" was then applied in medical faculties to the office now occupied by a dean).

These items show that Doctor Bennett had established in Wheeling a small hospital for treatment of some special diseases and that the trustees

had met and authorized the organization of a medical college under a specific name, and appointed him both dean and professor.

Several records in the United States show that the first instruction organized under a new university charter was in medicine and in such cases the medical college was given a specific name rather than being called merely "Medical Department of X University."

Such early organization of a medical faculty was because medical instruction could be begun on short notice and did not involve financial responsibility of university trustees. The medical college could be started in any auditorium where the lectures could be given. The only equipment necessary was seats for students, a lecture table, and a blackboard. The professors customarily furnished their own teaching equipment such as charts and a little apparatus for demonstrations in chemistry. A second building was needed for dissection. Any small building in a remote location where the rapid dissections could be done could serve the purpose.

Records exist of a medical college being started in an unused church or school. Two gave the early sessions of lectures in a hotel. Several began in an old residence or in the second-story rooms of a business block.

No provision for salaries was necessary. In all medical colleges of that period the medical professors assumed the entire financial reponsibility. They collected from the students the matriculation, tuition, and graduation fees, and from the total sum thus received paid rental, cost of fuel, stipends of employees, such as a janitor, and the incidental costs of instruction. The balance of the income was divided among the several professors at the end of each session, in lieu of salaries.

Wheeling was large enough for the establishment of a medical college. It had a larger population than either Charlottesville or Winchester where medical colleges were in operation. Several successful medical colleges were located in towns of far less than five thousand population. The medical institution having the third largest attendance in the United States in 1831 was in a village of only five hundred population. The medical curriculum of that time included little clinical instruction. The teaching consisted almost entirely of didactic lecures. The five thousand people in Wheeling could furnish ample clinical material for the little teaching of that type that would be done.

A medical college did not need to be located in a town having many resident physicians, because the majority of the professors in many medical colleges were visiting professors, who came and gave their lectures and then returned home. No medical college of that era had more than seven professors and some had only three or four. The length of the medical session in 1831 was either twelve or fourteen weeks. No medical college in the country had a session longer than sixteen weeks until after 1850. Therefore, a visiting professor would not need to be long absent from his practice and even this could be reduced to one-half of the length of the session by the device of giving two lectures each week-day until the total number of lectures of a course was completed. Then another visiting professor came to give his concentrated course.

A medical college needed at least one resident professor to look after the building and equipment of the institution and attend to correspondence during the eight or nine months between the lecture sessions. Visiting professors could be secured from Pittsburg, less than a hundred miles distant, or from Cincinnati, Baltimore, or Washington. Many records show men teaching in medical colleges that were three hundred or more miles distant from their homes and regular practice.

Therefore a medical college could be started in Wheeling according to the plan of medical education of that time if enough students could be attracted to cover the expense of conducting the institution in its early years. Although a medical college could be started in rented quarters and with little equipment, it could not long continue unless it could secure a building of its own. A medical college that was unable within three years to own its own building rapidly lost prestige and was forced to close. This is the history of many medical colleges of the nineteenth century that were founded but failed to become established.

The authorization of the medical college and appointment of a dean before July 30 gave plenty of time to secure other professors and to solicit students by correspondence and advertising for a session that would normally open about November 1. Inability to find files of the Wheeling newspaper of 1831 or the manuscript records of the trustees prevents ascertaining whether other professors were appointed, or whether institutional instruction was

actually given in medicine in Wheeling in the fall and winter of 1831-32.

Nearly every educational institution that secured a charter by legislative enactment in any state soon after returned to the legislature for financial aid. Wheeling University followed the common pattern. The General Assembly of Virginia received on December 20, 1831, a petition from a committee of the trustees of Wheeling University. This petition states that the Board of Trustees had organized and elected "the requisite officers and adopted a code of by-laws." Also it is stated that "the President and Trustees have obtained of the Mayor and commonalty and of Noah Zane, the proprietor of Wheeling, a grant of ten acres of land adjoining the town as a site whereon to erect the necessary buildings. This tract of land is advantageously situated on a commanding eminence overlooking the town." The petition then proceeds to ask for financial aid to supplement what can be raised by subscription among the citizens of Wheeling and vicinity to erect a building and secure equipment and a library and specifically asks a share of a bonus of stock created "by the Banking Charter granted to the N. W. Bank of Va. located at Wheeling . . ." An endorsement on the petition shows that it was referred to the Committee on Schools but was "not acted on, the Wheeling University having been included in a reported bill making appropriations to sundry institutions."[7]

The petition was signed by four trustees, two of them physicians, and is in the handwriting of one of the physicians. No reference is made as to whether instruction was in progress.

This refusal of definite financial aid by the General Assembly doomed the embryo institution. Doctor Bennett left Wheeling late in 1832 and correspondence with Rev. Alexander Campbell in 1833 stated that Dr. Bennett considered his efforts to found an institution in Virginia a failure.[8]

The council of the city of Wheeling in November, 1845, directed the Mayor to "make a deed in due form, conveying to the President of Trustees of the Wheeling University five acres of ground upon Wheeling Hill embraced in the deed of Noah Zane to said President of Trustees made in the year 1831 —said deed to contain the same conditions as that of said Zane to said President of Trustees."[9] This deed was made and recorded.[10] The reason for this second deed can only be conjectured. Possibly the first deed contained a clause of reversion if buildings were not erected within fifteen years, a time limit about to expire in 1845. The later history of Wheeling University has not been investigated.

When Doctor Bennett left Wheeling late in 1832, he went to another state to repeat his efforts to found a university and was somewhat more successful. The later colorful career of Doctor Bennett is not a part of this story. It included professorships in three medical colleges and the deanship in two of them. He also founded two universities in different states. He was president of both of these universities. Each had a short life and is now forgotten.

The main purpose of this paper is to bring to the attention of the doctors of West Virginia the fact that a serious effort was made to establish a medical college in the territory that is now within that state, seventy-one years before institutional medical instruction began in 1902 in the Medical Department of West Virginia University. The publication of this article may bring to light either files of Wheeling newspapers in 1831 and 1832 or the original manuscript records of the trustees of Wheeling University which will make it possible to determine whether institutional medical instruction was given and degrees conferred in Wheeling in the fall and winter of 1831-32.

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Generosity during life is a very different thing from generosity in the hour of death; one proceeds from genuine liberality and benevolence, the other from pride or fear.—Horace Mann.

The President's Page

It is not my desire to impose further on your time with an exposition of the variety or the importance of the various topics I have presented on this page over the months. In this, my last humble attempt to impress upon you the fact that the people of West Virginia DO have a problem of medical care, I shall content myself by saying that I sincerely believe health insurance is one of the most vital issues confronting the public today. I dare to assert that it is of greater importance to us as citizens than it can possibly be as physicians.

To this intricate problem I see three possible solutions: (1) Continue the status quo; (2) Stand by, with our heads deep in the sand, and permit the advent of governmental medicine; (3) Do the complete job ourselves in a democratic way by means of voluntary health insurance available to all. Our indigent and medically indigent groups will of necessity have to have a county or state supported plan. To each of these proposals will be found advantages and disadvantages. Finally it is our responsibility, today not tomorrow, to evaluate the good in all of them and choose the plan which, in the main, will assure good medical care for every man, woman and child in West Virginia.

It is my sincere belief that the conscience of most all physicians is troubled today. And it ought to be troubled. Certainly we cannot longer accept in silence the errors of commission and omission in our present system of medical practice. Yet we must not, in our search for perfection, withhold our support of the best which may now be practicable. In the acceptance of any type of medical insurance we should be alive to the fact that it is merely a beginning. Next to doing nothing, the worst calamity will be for us to regard what we do now as adequate. We must be alive to the fact that we are confronted by a continuing task.

To my successor, Dr. Wade H. St. Clair, I wish the best of success in 1947. Our Association is blessed to have him. In addition to strength of character and loftiness of ideals, he brings an unfaltering devotion, a singular capacity for clear and cogent reasoning, the prestige of a fine influence, and the very finest spirit of cooperation. He sees the facts and faces them. He dares to act.

To the committees who have carried the ball during the year, I am profoundly grateful. Moreover I am very proud of the progress made. The members have given generously of their time and have exerted their most diplomatic influence to interpret properly many difficult situations with which medicine has been faced during the past year. Even though we must have disagreements, it is my fervent hope that we do not carry misunderstandings or resentments.

Last January I said that it was our job to remove the fear, and as far as humanly possible, the curse of illness from every man, woman and child in West Virginia. This challenge is with us constantly. When the medical history of our time is written, I trust it will not show our besetting sin to be the "spirit of rugged individualism" which has plagued us over the years. A Brotherhood of Doctors is still the watchword.

Andrew E. Quick

President.

West Virginia Medical Journal

Official Journal of
The West Virginia State Medical Association
302 Atlas Building, Charleston, West Virginia

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Published monthly on the first day of the month, at Charleston, by The West Virginia State Medical Association.

Original articles are accepted on condition that they are contributed exclusively to the Journal.

Advertising rates furnished upon request. All advertisements must conform to the standard established by the Council of Pharmacy and Chemistry of the American Medical Association.

Address all communications to Business Manager, West Virginia Medical Journel, Box 1031, Charleston 24, West Virginia. Telephone, Capitol 34-625.

SUBSCRIPTION $3.50 PER YEAR

Entered as second-class matter, January 1, 1926. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized July 24, 1919.

GOVERNOR THURMOND'S PLAN

Recent press dispatches announce the plan of Governor-elect J. Strom Thurmond of South Carolina to require graduates of the Medical College of the State of South Carolina to serve compulsory two-year interneships in the eleemosynary institutions of the Palmetto State. These interneships would be put upon a rotating basis and would include service in mental and other hospitals and in county medical centers. The philosophy underlying the scheme is based upon the fact that the Medical College at Charleston is supported by the state and, inasmuch as the students are educated, at least in part, at state expense, the graduates owe the state a debt in return for state aid in their professional education. According to the press reports, Governor Thurmond will endeavor to have his plan affect the June, 1947, graduating class.

We doubt seriously the legality of the plans applying to those students already in course because of the ex post facto provisions of the Constitution of the United States. It would appear, at least to the lay mind, that the conditions under which one is admitted to an educational institution would in effect constitute a de facto contract covering the entire course of study and could be abrogated only by the consent of both parties thereto. Certainly this is the principle which has guided the Council on Medical Education and Hospitals in degrading medical schools, and we believe it to be sound both logically and legally. Students admitted under such conditions as Governor Thurmond outlines could, however, in our judgment, be required to render such service to the state. We have been informed that Governor Thurmond, if not a practicing attorney, is at least the holder of a law degree, and it may be that he has already considered the legal implications inherent in his plan which at first glance would appear, as far as those students already in course at the Charleston institution are concerned, to constitute "involuntary servitude", and as such to violate the Thirteenth Amendment to the Federal Constitution.

We admit frankly that the physician owes a debt not only to the instrumentality we call "The State", but to society at large as well. We are very strongly of the opinion, however, that this debt does not extend to either breach of contract or the exaction of involuntary servitude on the part of the state. It is our impression that in recent years "The State" has tended to become a kind of super-being which would consider the individual an atom in its own make up; a theory which followed to its logical conclusion, would render the state totalitarian and would mean the extinction of democracy, the very soul of which is freedom of the individual. The regimentation which has loomed so large in the New Deal (which has had many worth while aspects) has contributed enormously to this totalitarian super-state concept.

We are tired of the efforts of every would-be-reformer to use the medical profession as a "whipping boy"; and this is especially true of the misguided idealists sojourning upon the Potomac who would regiment everything from Alpha to Omega and everybody from the cradle to the grave. Medicine as a profession is not perfect. In fact it does not even approach the 99.44% purity of which Ivory Soap boasts. However, when we take into consideration the actual accomplishments of the modern medical profession, especially the decrease in morbidity and mortality rates, the increased life expectancy, and the prolonged lifespan, not to mention the therapeutic achievements of the past decade, we cannot help but resent the "whipping boy" attitude held toward us by the modern politically minded social "lifter-upper". It simply violates our concept of fair play. Certainly the medical batting average equals that of any other profession and surpasses that of the vast majority of callings.

Why should the governor of the Palmetto State choose doctors for compulsory service? Why not require Clemson graduates to serve as county agricultural demonstration agents? Surely the agricultural welfare of the state needs such workers. Why not require Citadel graduates to serve as officers in the National Guard of South Carolina? We dare say South Carolina contributes as much to the education of each graduate from either of these institutions as in the case of a graduate from its Medical School.

Full well we realize that criticism which is merely fault finding is valueless; hence we are making bold to offer suggestions. Call upon the medical profession for advice. Consult the State Health Commissioner and Council of the State Medical Association. The day compulsory service is required of those now in course at Charleston, the South Carolina banner displaying "the bright crescent of hope and proud palmetto tree" will sag limply about the flagstaff surmounting the State House in Columbia. The shades of the men who made up the immortal Palmetto Regiment will shudder. What would Marion, and Sumpter, and Pickens think? The spirit of the daring Jasper will groan in anguish and wonder if this is the South Carolina he died to free. The boasted spirit of freedom of the governor's native county of Edgefield will bow its head in shame. Why not consider the plan now projected in Virginia and Kentucky of subsidization of Medical Students and require of the recipients of the subsidiary that they not only serve the interneships contemplated but that they practice a certain limited time in communities needing the services of a physician, the specific localities involved to be designated by the State Board of Health? Then will South Carolina receive from her medical graduates the service she needs and to which she is entitled, without totalitarian fanfare and without doing violence to the spirit of democracy.

A NEW QUESTIONNAIRE

Another—a new—questionnaire is being mailed to all the returned medical veterans by the Committee on National Emergency Medical Service of the American Medical Association. The last of the 45,000 blanks should be in the mails shortly after the first of December. As pointed out by Frank G. Dickinson, director of the Bureau of Medical Economics, the questionnaire has been framed so that the doctor does not have to write much but will merely check the proper square in answering most of the questions.

It is expected that recommendations will be made by the committee on the basis of the returned questionnaires and other surveys for improved methods of handling military and civilian medical personnel, as well as civilians generally, in the event of a new national emergency.

If there is ever another national emergency, and God grant that there may never be, then the mistakes that were made in World War II must not be repeated. That the proper committee of the A. M. A. may have the reaction of those who served so well, the questionnaire is being mailed to the last known address of all medical officers who have been released from service with our armed forces.

Returned medical veterans are urged to read the news story printed elsewhere in this issue of the Journal. They are requested to fill in and return the questionnaire without delay. Boiled down, an effort is being made by the Committee on National Emergency Medical Service, aided by the A. M. A. Committee on Medical Service, to obtain from the returned medical veteran full, frank and complete answers to vital questions. We hope that the 400 members of our State Medical Association who have been released from the service will cooperate to the fullest extent in this worthwhile undertaking. The views of medical veterans stated unequivocably will enable the committee to prepare and submit with recommendations a report calculated to be of inestimable aid in the distribution of medical service if we ever again have need for a mobilization of our doctors.

POSTELECTION PALAVER

The election has come and gone and the party of the New Deal, so long in the majority, has drained to the dregs the bitter cup of defeat. While the outcome of the balloting is obvious, and in fact was obvious days before the actual voting, the long range results are not yet crystal clear by any manner of means. Certainly the political centre of gravity has shifted to the right, and apparently the successful party will make good its promise to lessen governmental expenses and lower taxes. Both common sense and political expediency demand as much. We make bold also to prophesy that the Murray-Wagner-Dingell bill is killed and any form of compulsory governmental sickness insurance is projected far into the indefinite future; so far in fact, as not to come within the range of future predictable events.

THE HOSPITAL SURVEY

The hospital survey should be well under way in West Virginia by the time this issue of the Journal is off the press. If we are to participate in the construction program provided for in the Hill-Burton bill, it is necessary that we make this statewide survey and then report in detail to the United States Public Health Service.

Dr. Paul R. Gerhardt is eminently qualified to direct the survey. His experience as director of the division of medical services of the department of public assistance, and as director of the cancer control division of the state health department, has given him firsthand knowledge of hospitals and medical conditions in West Virginia that will enable him to prepare quickly and efficiently an overall report of our needs for consideration by the advisory committee which will be appointed by Governor Meadows.

Much of the preliminary work has already been done by Mrs. George Fordham, of the state health department, and, with the full cooperation of officials of existing hospitals, together with the assistance of all of our people interested in the construction of hospitals, clinics, and medical health centers in the state, the task should not be too difficult.

The director needs the support of the medical profession in this work. This support he will unquestionably receive in full measure.

FAMILY DOCTORS ESSENTIAL

The American system of medicine always has had the general practitioner as the very hub of its machinery. Family doctors are an essential part of the economy of American families. Transportation and communications systems have not been developed to a point where general practitioners should be allowed to decrease in number. Neither should the necessity of general practitioners be overlooked in solving the increasing costs of medical care.

How much will medical care cost as the public is forced to seek its medical care from one specialist after another instead of from the family doctor?

This continuing decrease of general practitioners should be recognized as the greatest problem of organized medicine.

Unless the medical profession itself, provides the answer in the not-too-distant future, some governmental agency will be given control of both medical education and medical practice in order to permit compulsory placement of physicians in rural areas. Would it not be far better to accept the challenge now, and to see that the profession provides the answer in a democratic manner rather than permit forced regimentation?—E. J. S. in The Journal-Lancet.

General News

BOARD OF REVIEW APPOINTED TO AID VA IN VETERANS CARE PROGRAM

A board of review has been appointed by Dr. Andrew E. Amick, president of the State Medical Association, under the provisions of the contract formally executed between the Association and the Veterans Administration. The board is composed of Drs. Claude B. Smith and Paul H. Revercomb, of Charleston, and James R. Brown, of Huntington.

The agreement provides that it shall be the duty of the board to review reports which are deemed by the Veterans Administration to be inadequate, or which do not meet the requirements of the Veterans Administration; to recommend, at its discretion, the disqualification of any physician from further work with the Veterans Administration whose work is found by the board to be incomplete or unsatisfactory; and to advise and assist the Veterans Administration in other matters within the scope of the program.

With the signing of the contract, the work of the Veterans Affairs Committee was completed. This committee, which has functioned since early in the year, was composed of Drs. Claude B. Smith, Charleston, chairman; C. O. Post, Clarksburg; Thomas L. Harris, Parkersburg; Francis A. Scott, Huntington; and Ralph J. Jones, Charleston.

The Veterans Administration has requested that the contract number "VAm—22169" be used on all correspondence and vouchers pertaining thereto addressed to the Veterans Administration. The use of this contract number will expedite consideration of matters presented.

As of November 15, 812 members of the West Virginia State Medical Association have been certified as fee-designated physicians under the veterans care program.

CANCER PROJECTS MUST BE APPROVED BY LOCAL MEDICAL SOCIETY COMMITTEE

At a meeting of the executive committee of the West Virginia Cancer Society, Inc., held October 31, 1946, at Clarksburg, Mr. Homer Gebhart, of Huntington, treasurer of the society, was named as disbursing agent for all county and local cancer organizations.

The establishment of a cancer information center, with a cancer field worker, recommended by the project committee, was unanimously approved.

The committee directed that, of the 60% of funds realized from cancer drives which will remain in this state, 15% is to be utilized for administrative expenses at the state offices. The remaining 45% may be expended as follows: (1) An approved project in any county may spend up to 45% of that county's annual contribution; (2) If the full 45% is not sufficient to finance the approved project, the executive committee can appropriate from the

state general fund a sufficient amount to take care of the balance; and, (3) An adjoining or adjacent county to an approved project may allocate its entire 45% to that project.

The preliminary report of the project committee, submitted by Dr. Paul R. Gerhardt, chairman, and Drs. T. L. Harris, and R. O. Rogers, and approved by the executive committee, provides that all local projects must have the approval of the cancer committee of the local medical society.

The committee unanimously disapproved the affiliation of county cancer organizations with community chest drives.

The committee adjourned to meet Thursday, December 5, at 1:00 P. M. at the Chancellor Hotel, in Parkersburg.

PHCA POLICIES APPROVED

Dr. Paul R. Gerhardt, director of the Division of Cancer Control of the State Health Department, discussed a paper by Dr. Hilda La Rocca of the Massachusetts state health department's cancer bureau, at the annual meeting of the Public Health Cancer Association, held conjointly with the American Public Health Association, November 11-14, at Cleveland. The subject of Doctor La Rocca's paper was, "The Care of the Patient with Advanced Cancer."

Doctor Gerhardt was elected a member of the Policy Committee and the Committee on Qualifications for Cancer Control Directors and Other Professional Personnel. The policies which were formulated by this committee were accepted by the Public Health Cancer Association. The following were among the items approved: (1) The formation of a national advisory committee to suggest over-all planning for cancer control in the states; (2) The formation of state and local advisory committees composed of representatives of state medical associations, state divisions of the American Cancer Society, and representatives of state cancer control divisions; (3) Establishment of a cancer control division in the health departments of every state; (4) Establishment of a method of cancer case reporting in the nature of a registration bureau for statistical study and evaluation; (5) Emphasis of training of cancer control administrators; (6) Education of the public to the importance of periodic health examinations for the detection of cancer; and (7) Local responsibility for the care of advanced cancer cases.

Besides West Virginia, states in which full-time cancer control programs are in operation include Massachusetts, New York, Connecticut, Iowa, Michigan, Illinois, Georgia, Louisiana, California, Pennsylvania, North Carolina, Kansas, New Jersey, Missouri, and Indiana. Several other states are setting up cancer control divisions, and some already have cancer projects such as hospitals and clinics sponsored by local chapters of the American Cancer Society and other non-official agencies.

PHC MEETS JAN. 6-8

The mid-winter meeting of the Public Health Council will be held January 6-8, 1947, at the Daniel Boone Hotel, in Charleston, for the purpose of examining applicants for licensure in West Virginia.

HOSPITAL SURVEY UNDER HILL-BURTON BILL GETS UNDER WAY

The sum of $22,500 has been allocated by Gov. Clarence W. Meadows from his emergency fund to cover the state's share of the cost of a statewide hospital survey, which will be made under the provisions of the Hill-Burton Bill, recently passed by Congress.

This bill appropriated $75,000,000.00 a year for five years for the construction of hospitals, medical centers, and clinics throughout the country. West Virginia's share is $1,555,000.00 per year.

This state will receive $11,250 from the federal government to help finance the survey which is required under the provisions of the bill. The survey will be under the immediate supervision of Dr. N. H. Dyer, state health commissioner. Dr. Paul R. Gerhardt, director of the division of cancer control, will serve as consulant and medical advisor. Much of the preliminary work has already been completed by Mrs. George Fordham, a member of the state health department's administrative staff. It is expected that the budget, which was prepared and mailed to Washington early in November will be approved without delay, and it is hoped that the survey may be completed within the next four to five months. An advisory committee is to be appointed by the governor which must approve any report that is submitted to Washington for consideration by the United States Public Health Service.

The bill provides for the construction of hospitals, clinics, and medical centers by states, counties, municipalities, and non-profit organizations.

DPA NAMES MEDICAL DIRECTOR

Dr. Harold H. Kuhn, of Charleston, has been named chief of the Division of Medical Services of the Department of Public Assistance by Mr. Robert F. Roth, the director. He will serve on a part-time basis, effective November 1, 1946.

There has been a vacancy in the position of chief of the division of medical services since Dr. Paul R. Gerhardt resigned in 1945 to accept appointment as director of the Division of Cancer Control. Mrs. Mae W. Stratton, who has been acting chief of the division for several months will serve as administrative assistant to the new director.

GOING TO ATLANTIC CITY?

Cups and medals are the rewards. Also $34,000 in Savings Bonds for the Special Contest "Courage and Devotion Beyond the Call of Duty" (in war and in peace).

The reward is also professional pride in the achievements of the medical profession in the field of fine art—and also what art can do for you personally—physically, mentally and spiritually. "Art is the best occupational therapy for physicians."

For further information, write Harvey Agnew, M. D., President, A. P. A. A., 280 Bloor Street West, Toronto 5, Canada, or F. H. Redewill, M. D., Secretary of the A. P. A. A., or the sponsor, Mead Johnson & Co., Evansville 21, Indiana, U. S. A.

WEST VIRGINIA DOCTORS PARTICIPATE IN ANNUAL SMA MEETING IN MIAMI

Several West Virginia doctors took an active part in the 40th annual meeting of the Southern Medical Association, November 4-7, in Miami, Florida.

Dr. Ray M. Bobbitt, of Huntington, who has served as a member of the Council for the past four years, was elected chairman to succeed Dr. W. Raymond McKenzie, of Baltimore. Dr. Bobbitt will serve during the year 1947. Dr. R. J. Wilkinson, of Huntington, was elected chairman of the section on surgery, succeeding Dr. W. C. Jones, of Miami. Doctor Wilkinson has served as secretary of the section during the past year.

Dr. J. J. Brandabur, also of Huntington, was reelected secretary of the section on internal medicine and surgery.

Dr. R. L. Anderson, of Charleston, presented a paper on "Fractures of the Pelvis: A Study of End-Results." The paper was presented Wednesday, November 6, before the Section on Orthopedic and Traumatic Surgery. Dr. Ray M. Bobbitt, chairman of the Section on Urology, presented a paper before that section the same day. His subject was "Evaluation of Certain Types of Renal Pain."

Dr. E. L. Henderson, of Louisville, Kentucky, was installed as president to succeed Dr. M. Y. Dabney, of Birmingham, Alabama. Doctor Henderson served as chairman of the Procurement and Assignment Service for the fifth corps area during World War II. Besides West Virginia, the area included Ohio and Kentucky.

Dr. Lucien A. LeDoux, of New Orleans, was named president elect. He will succeed Doctor Henderson as president in January, 1948. Other officers were elected as follows: First vice president, Dr. Oscar B. Hunter, Washington, D. C.; second vice president, Dr. Robert T. Spicer, Miami; and, chairman of the board of trustees, Dr. Paul H. Ringer, Asheville, North Carolina.

Dr. Paul A. Turner, of Louisville, Kentucky, was elected president of the American College of Chest Physicians, which met conjointly with the Southern Medical Association. He succeeds Dr. Carl C. Aven, of Atlanta, Georgia.

The date and place of the 1947 meeting will be fixed by the Council.

Annual meetings of the southern branch of the American Public Health Association, which have been held conjointly with the Southern Medical Association for several years, will hereafter be held separately.

Over 1800 physicians were registered Monday and Tuesday, November 4-5, and the Auxiliary registration totaled 908 for those two days. The following doctors were registered from West Virginia: Andrew E. Amick, Lewisburg; R. L. Anderson, Charleston; Oscar D. Ballard, Van; James R. Bloss, Huntington; Ray M. Bobbitt, Huntington; J. J. Brandabur, Huntington; Boyd F. Brown, Huntington; Hokie H. Fisher, Dunbar; Ralph M. Fisher, Weston; Thomas G. Folsom, Huntington; Gerald E. Hartle, Wardensville; W. E. Hoffman, Charleston; Leonard I. Hoke, Nitro; Frank J. Holroyd, Princeton; Aubrey F. Lawson, Weston; Frank C. Long, Jr., Point Pleasant; F. O. Marple, Huntington; Asa W. Milhoan, Nitro; T. W. Moore, Huntington; U. G. McClure, Charleston; Berlin B. Nicholson, Parkersburg; E. M. Phillips, Wheeling; Thomas J. Sasser, VA Rating Specialist, Medical, Huntington; Charles N. Slater, Clarksburg; Isaiah W. Taylor, Huntington; James Thompson, Morgantown; Walter E. Vest, Huntington; R. J. Wilkinson, Huntington; and J. E. Wilson, Clarksburg.

FELLOWSHIPS IN PUBLIC HEALTH

Fellowships leading to a Master's Degree in Public health in the field of Health Education are being offered to any qualified United States citizen between the ages of 22 and 40, according to a news release by the United States Public Health Service, Federal Security Agency. Tuition, travel expenses for field training, and a stipend of $100 a month will be provided out of funds furnished by the National Foundation for Infantile Paralysis.

Candidates must hold a bachelor's degree from a recognized college or university and must be able to meet the entrance requirements of the accredited school of public health of their choice. In addition to the degree, courses in the biological sciences, sociology, and education may be required. Training in public speaking, journalism, psychology, and work in public health or a related field are considered desirable qualifications.

The year's training, which begins with the 1947 fall term, consists of eight or nine months academic work including: public health administration, epidemiology, public health and school education, problems in health education, community organization, and information techniques; and three months of supervised field experience in community health education activities.

Veterans are encouraged to apply and will be paid the difference between their subsistence allowance under the G. I. Bill of Rights and the monthly stipend of $100. Employees of local and state health departments are not eligible since Federal grants-in-aid are already available for such training purposes.

Application blanks may be obtained by writing the Surgeon General, United States Public Health Service, Washington 25, D. C., and must be filed prior to March 15, 1947.

A. M. A. CENTENNIAL

The American Medical Association will celebrate its centennial at the annual meeting in Atlantic City, June 9-13, 1947. Only Fellows and invited guests are eligible to attend. Membership in a state society is the primary qualification for fellowship in the A. M. A. The dues, including subscription to the Journal of the American Medical Association, are $8.00 per annum, which is the cost of the Journal to subscribers who are not Fellows.

The A. M. A. will reply promptly to inquiries concerning eligibility to become a Fellow, and it is suggested that doctors who are not fellows who are planning to attend the Atlantic City session, which will be a milestone in medical history, write immediately for such information. Inquiries should be addressed to the American Medical Association, 535 North Dearborn Street, Chicago 10, Illinois.

MEDICAL VETERANS ASKED TO AIR VIEWS ON AMA QUESTIONNAIRE

Dr. Edward L. Bortz, of Philadelphia, chairman of the Committee on National Emergency Medical Service of the American Medical Association, has announced the mailing of a comprehensive questionnaire to more than 45,000 discharged medical officers of World War II.

"Since the results of the questionnaire will serve as a useful guide in preparing for any new national emergency," Dr. Bortz said, "the committee urges all the returning medical officers to express frankly, fully and completely their reaction to military service."

The questionnaires will be mailed from A. M. A. headquarters in Chicago during November and should be returned within a month. The results will be tabulated and analyzed in detail.

TO MEDICAL VETERANS

If your questionnaire is not received by December 10, it is suggested that you get in touch immediately with the headquarters office of the West Virginia State Medical Association, Box 1031, Charleston 24, West Virginia, and a duplicate copy will be mailed to you promptly.

The following letter, signed by George F. Lull, M. D., secretary and general manager of the A. M. A., in behalf of the committee will accompany each questionnaire:

"The House of Delegates of the Americal Medical Association in December 1945 created a committee to study the over-all needs and utilization of medical skills and resources of the nation in the case of an emergency. The House passed the following resolution:

'. . . that the association undertake a critical study of the duties of medical officers during the war just passed, with special reference to (1) opportunities for study, research and actual treatment of the sick; (2) rotation of medical assignments; (3) quasi-medical duties for which technicians and specially trained enlisted personnel might replace physicians. . . .

'. . . and appoint a special committee to study by means of questionnaires sent to medical officers on release from active duty. . . .'

"The Board of Trustees has appointed a National Emergency Medical Service Committee and instructed it to undertake the study and prepare plans as described in the action of the House of Delegates.

"A pilot questionnaire was sent to 1,000 former medical officers, selected at random. The response was surprisingly large. A total of 470, or 47 per cent, of those questionnaires were carefully filled out and returned. Certain technical defects in the pilot questionnaire form were noted and the revised questionnaire enclosed herewith was developed. It is being sent to all former medical officers, including those who received the pilot questionnaire.

"The Committee is a fact finding board and hopes to make recommendations that will lead to better utilization of medical skills and resources in a future emergency. Your help in this will be appreciated. A stamped envelope is enclosed for your early return of the completed questionnaire. You are cordially invited to write a covering letter if the questionnaire has omitted points which you deem significant"

Dr. Bortz said that the committee feels that its final analysis and recommendations should cover not only the military services, but also other governmental agencies, industry, medical education, research and civilian medical care.

The Committee, in so far as possible has provided check lists in this questionnaire. This makes it possible for the doctor merely to check the proper item and avoid taking the time to write out his answers.

Some of the questions will require written explanations, however. For example: What important features of training were not sufficiently stressed? What in your opinion should be included in an ideal training program? If there was waste of personnel in your unit, please state how personnel could have been used effectively. What suggestions have you about methods of assignment of medical officers in the event of another military emergency?

In discussing the questionnaire, Dr. Bortz stressed the desirability of deliberation on the part of every physician in answering the questions. "The objective sought," he said, "can be best attained by careful consideration of each and every question."

In addition to Dr. Bortz, the National Emergency Medical Service Committee is composed of Harold S. Diehl, M. D., University of Minnesota, Minneapolis; Perrin H. Long, M. D., Baltimore; Harold C. Lueth, M. D., the University of Nebraska, Omaha; O. O. Miller, M. D., Louisville, Ky.; James C. Sargent, M. D., Milwaukee, and V. C. Tisdal, M. D., Elk City, Oklahoma.

DR. AMICK NAMED HEALTH OFFICER

Dr. Andrew E. Amick, of Lewisburg, has been named by Dr. N. H. Dyer, state health commissioner, as district health officer and pediatric consultant for District No. 2, composed of Greenbrier, Pocahontas, and Monroe counties. Headquarters will be set up at Lewisburg.

With the announcement of the appointment of Doctor Amick, the commissioner said that the state health department is now working out details for a branch laboratory which it is hoped can be established and operated at Lewisburg under the supervision of Doctor Amick. Plans are still in the formative stage, but it is expected that the laboratory can be opened shortly after the first of the year. There has been a vacancy in the office of district health officer for District No. 2 since 1944, when Dr. Herbert Duncan resigned to accept a residency in eye, ear, nose and throat at the Nashville General Hospital, in Nashville.

DR. McLAUGHLIN ON PROGRAM

Dr. Ralph S. McLaughlin, of Charleston, was one of the speakers at the 11th annual meeting of the Industrial Hygiene Foundation at the Mellon Institute in Pittsburgh, November 7. His subject was, "New Methods for Saving Eyes from Chemical Burns."

RELOCATIONS

Dr. Arnold Wilson, of Welch, who was released from military service several months ago, has moved to Pasadena, Texas, where he has offices in the Jensen Building.

* * * *

Dr. David A. Watkins, formerly of Masontown, was recently released from military service and has accepted a position with the Veterans Administration regional office at Huntington. He is residing temporarily in Buckhannon.

* * * *

Dr. Robert G. Smith, formerly of Beckley, has been released from military service and is residing temporarily in Columbus, Ohio. At the time of his release he was serving with the rank of Major. During the war he was assigned to the O'Reilly General Hospital and the Percy Jones General Hospital, and also served with the 37th and 155th station hospitals and the 248th Army general hospital in the Philippines.

* * * *

Dr. Julian R. Kaufman, formerly of Charleston, has been released from military service and is now located at Louisville, Kentucky, with offices in the Francis Building. During the war, he was stationed at Stark General Hospital at Charleston, South Carolina, and the ASF Regional Hospital, Fort Jackson, Columbia, South Carolina.

* * * *

Dr. Edward J. Evans, of Huntington, has accepted a two-year residency in pediatrics at the Medical College of Virginia Hospital, beginning in October, 1946. He has recently been connected with the C. & O. Hospital in Huntington.

* * * *

Dr. William U. Cavallaro, of Manasquan, New Jersey, has accepted a residency in orthopedic surgery at Morris Memorial Hospital, in Milton, succeeding Dr. Earl F. Winter, who, after the completion of a one-year residency, accepted a two-year residency in surgery at the Lahey Clinic, in Boston.

Dr. Cavallaro is a graduate of the College of Physicians and Surgeons of Columbia University, New York, and was just recently released after four years' service in the Army Medical Corps.

* * * *

Lt. Col. Lewis E. Nolan, formerly of Montgomery, who was released from military service in April 1946, is now located at Monroe, Louisiana.

* * * *

Dr. Paul J. Nutter, formerly of Clarksburg, was released from military service May 30, 1946 and is now located in Fredericksburg, Virginia. He is connected with the Medical Center at 1200 Prince Edward Street, and his practice is limited to general surgery.

ICS HONORS DR. CANNADAY

Dr. John E. Cannaday, of Charleston, was elected one of the vice presidents of the International College of Surgeons at the annual meeting held October 20-23, in Detroit. Doctor Cannaday has served as state regent for West Virginia for the past several years.

STREPTOMYCIN TESTING IN TB

The Civilian Production Administration and a group of pharmaceutical manufacturers have recently requested that the American Trudeau Society conduct an adequate therapeutic testing program with streptomycin in treatment of clinical tuberculosis. The object of this study will be to determine more of the possibilities and limitations of streptomycin in clinical tuberculosis and to learn if the drug is sufficiently promising to justify great commercial expansion. The Executive Committee of the Trudeau Society has agreed to accept this task and has requested that the chairman of the Committee on Therapy direct the program with the aid of a special committee.

Streptomycin is available commercially at the present time through various depot hospitals, which are essentially the retail agents for sale of streptomycin, not only to patients within these hospitals but to patients in nearby hospitals. Unfortunately, the price is extremely high at present but should be steadily reduced when production increases. The decision as to whether or not streptomycin will be sold by depot hospitals for cases of tuberculosis is to be made by the depot hospital. In most instances at least, it is unlikely if the allocations are sufficient to permit such sale during the next few months.

ACS PLANS CLINICAL CONGRESS

The five-day Clinical Congress of the American College of Surgeons will open in Cleveland on Monday morning, December 16, 1946, at 9:30 o'clock. This will be the first annual meeting of the College since 1941. Headquarters will be in the Cleveland Public Auditorium, and the Statler and Cleveland hotels, with most of the sessions, except the clinics at the hospitals, being held in the Auditorium. The program will include operative and non-operative clinics, demonstrations, symposia, panel discussions, forums, medical motion pictures, exhibits, and the 25th Annual Hospital Standardization Conference, which will convene during the first four days.

The Convocation will be held on Friday evening. Dr. Reuben G. Gustavson of Omaha, Chancellor of the University of Nebraska, will deliver the Fellowship Address. Several hundred surgeons who have been received into fellowship in absentia during the war years in which no Convocation was held, will be added to the initiates for the current year, numbering more than 500, who will be present to participate in the initiation ceremonies.

JOINS HEALTH SERVICE STAFF AT WVU

Dr. O. T. Coffield, of Morgantown, has joined the staff of the University Health Service at West Virginia University, of which Dr. J. J. Lawless is director. Dr. Coffield received his A. B. in 1940 and his B. S. in 1942 at West Virginia University, and his M. D. from the University of Louisville School of Medicine in 1943. After serving his internship at Wheeling General Hospital, he was commissioned in 1944 in the Army Medical Corps and served until his release in 1946.

AMERICAN DIABETES ASSOCIATION

The first postwar meeting of the American Diabetes Association was held at the University of Toronto, in Toronto, Canada, October 14-16. Dr. Joseph Barach, of Pittsburgh, the president, presided at the meetings, and distinguished guests included Drs. Houssay, of Buenos Aires, Lawrence, of London, and Hagedorn, of Copenhagen. Dr. C. H. Best, Director of the Banting-Best Institute and Professor of Physiology at the University of Toronto, served as general chairman of the meeting.

Dr. William M. Sheppe, of the Wheeling Clinic, attended the meeting as representative from West Virginia.

UROLOGY AWARD

The American Urological Association offers an annual award "not to exceed $500" for an essay (or essays) on the result of some clinical or laboratory research in Urology. Competition shall be limited to urologists who have been in such specific practice for not more than five years and to residents in urology in recognized hospitals.

For full particulars write the Secretary, Dr. Thomas D. Moore, 899 Madison Avenue, Memphis, Tennessee. Essays must be in his hands before May 1, 1947.

The selected essay (or essays) will appear on the program of the forthcoming meeting of the American Urological Association, to be held June 30-July 3, 1947, at the Hotel Statler, Buffalo, New York.

NEW PSYCHIATRIC FOUNDATION

The lay and medical worlds were called upon this month to mobilize their resources behind The Psychiatric Foundation in the fight against mental ills in America.

This new Foundation, which will have as its officers and directors outstanding lay leaders of the country, is fathered by the American Psychiatric Association and sponsored by the American Neurological Society. Officers and directors will be announced later.

Dr. Leo H. Bartemeier of Detroit, Secretary-Treasurer of the American Psychiatric Association, heads the Medical men designated by the American Psychiatric Association to assume responsibility during the organizing period.

Included on the Organizing Committee in addition to Dr. Bartemeier, are: Dr. Edward A. Strecker, Philadelphia; Dr. Frederick H. Parsons, New York City; Dr. Karl M. Bowman, San Francisco; Dr. Arthur H. Ruggles, Providence, R. I.; Dr. Winfred Overholser, Washington; Dr. Harry C. Solomon, Boston; Dr. Gregory Zilboorg, New York City; Dr. C. Charles Burlingame, Hartford, Conn.; Dr. M. A. Tarumianz, Farmhurst, Del.; D. Walker Wear, New York City. Austin M. Davies is executive director and headquarters are in Room 924, 9 Rockefeller Plaza, New York City.

RURAL PRACTICE

We are all aware of the alarm that is being sounded from one end of the country to the other in regard to the lack of sufficient medical care for America's rural population, care which our farm people justly deserve. This situation should not exist, and must not be permitted to continue, for agriculture is one of the most essential cogs in our economic machinery. Without the farmer and his family producing as they do, the entire world would suffer for want of proper nutrition and many other essentials that come directly or indirectly from the soil. We cannot afford to neglect our fine farmer folk.—Jesse E. Ferrell, M. D., in J. Indiana St. Med. Assn.

RELEASED FROM MILITARY SERVICE

Late in November, the West Virginia State Medical Association was notified by the War Department of the release from military service of several members. The following is the complete list with the present address of each medical veteran:

Major Hyman Ashman, Gallagher; Goldwater Memorial Hospital, Welfare Island, New York, New York.

Major Donald L. Butterfield, Milburn; 509 Jones Avenue, Waynesboro, Georgia.

Major John L. Feldman, Longacre; 1 University Place, c/o Collins, Apt. 22-D, New York, New York.

Major Harold W. Ward, Sutton; 316 West Lane Avenue, c/o L. C. Ward, Columbus, Ohio.

Captain Philip L. Becker, Kimberly; 340 Ophelia Street, Pittsburgh, Pennsylvania.

Captain Norman L. Cardey, Winona; 533 N. St. Andrews Pl., Los Angeles 4, California.

Lt. Colonel Lewis E. Nolan, Montgomery; Monroe, Louisiana.

Captain Ralph C. Greenberg, Masontown; 1499 Morris Avenue, New York, New York.

Captain Homer J. Hancock, Welch; Sedley, Virginia.

Captain Robert M. Lamb, Winona; 209 E. 7th Street, Superior, Wisconsin.

Captain Robert G. Smith, Beckley; 733 Oakwood Avenue, Columbus, Ohio.

Captain John H. Woolwine, Jr., Tams; Blacksburg, Virginia.

The present military addresses of the following members still in the service were furnished by the War Department:

Major Robert A. McLane, O326806, MC, China Service Command Hospital, APO 906, c/o Postmaster, San Francisco, California.

Captain Clinton B. Chandler, O486905, MC, Wakeman General Hospital, Camp Atterbury, Indiana.

Captain Owen A. Groves. O501050, MC, Hq. AAF Flight Squadron, 503 AAF Base Unit, Washington National Airport, Washington, D. C.

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County Society News

CABELL COUNTY

At the regular monthly meeting of the Cabell County Medical Society, held October 10 at the Hotel Prichard, in Huntington, Dr. Roy W. Scott, Professor of clinical medicine at Western Reserve Medical School, and chief of the medical service of the Cleveland City Hospital was the guest speaker. His subject was, "Differential Diagnosis of Chest Pain."

At the business meeting following the scientific program, the following officers were elected for 1947: President, James S. Klumpp; vice president, L. J. Moore; and secretary, Thomas L. Grove. Dr. Ivan R. Harwood was reelected treasurer and Dr. J. F. Barker was reelected to the board of censors. Drs. J. F. Barker, V. L. Chambers and R. J. Stevens were elected as delegates to the House of Delegates, and Drs. Lee F. Dobbs, C. S. Duncan and A. S. Jones were elected as alternates.

Dr. Joseph Kremsky, a member of the staff at the Veterans Hospital, was accepted as a member of the society by transfer from the Albemarle County (Virginia) Medical Society.

* * *

Dr. Paul H. Harmon, Medical Director of the Morris Memorial Hospital at Milton, was the guest speaker at the regular monthly meeting of the Cabell County Medical Society, held November 14, at the Hotel Prichard, in Huntington. His subject was "Arthoplastic Operations in the Treatment of Chronic Arthritis." The paper was illustrated by lantern slides and motion pictures.

—CHAS. A. HOFFMAN, M. D.,
Secretary.

* * *

KANAWHA

Dr. R. Franklin Carter, attending surgeon, New York Post-Graduate and Gouverneur city hospitals, and chief of clinic and attending surgeon to the combined surgical and medical clinic for the study of gall bladder disease, New York Post-Graduate Hospital, was the guest speaker at the regular monthly meeting of the Kanawha Medical Society, held November 12 at the Daniel Boone Hotel, in Charleston. Doctor Carter's subject was "The Diagnosis and Treatment of Infectious Cholecystitis and Cholangitis." He presented an excellent resume of the diagnosis and treatment of gall bladder disease.

At a short business session held following the scientific program the following doctors were elected to membership: Dr. David Bachwitt, South Charleston; Dr. Victor S. Skaff, Charleston; and Dr. James H. Gray, Ward.

Drs. V. L. Peterson, R. L. Anderson, and Maxfield Barber were elected members of a nominating committee for officers for 1947.

—T. P. MANTZ, M. D.,
Secretary.

MARION COUNTY

F. Elmer Niebuhr, Federal Narcotic Agent, was the guest speaker at the regular monthly meeting of the Marion County Medical Society held Oct. 28, at the Fairmont Hotel, in Fairmont. His subject was "Prescribing and Dispensing of Narcotics under the Harrison Narcotic Act." After an interesting discussion of the provisions of the act, Mr. Niebuhr quoted "narcotic dont's for physicians," stressing the necessity for strict observance of the law.

At the business meeting following the scientific program, the society went on record as approving a blood-typing program under which a card index system will be set up and maintained in the laboratory at the Fairmont General Hospital showing availability of blood donors in case of emergency.

—E. D. WISE, M. D.,
Secretary.

* * *

MERCER COUNTY

At the regular monthly meeting of the Mercer County Medical Society, held October 17 in the Memorial Building, at Princeton, Dr. N. H. Dyer, state health commissioner, discussed public health work in West Virginia. He pointed out that 58 cents per capita is spent in this state for public health work, and that West Virginia ranks 39th among the states in appropriations made for this work.

Dr. Paul R. Gerhardt, director of the division of cancer control, reported that this state is the seventh state to inaugurate a full-time cancer control program. He stated that eleven tumor clinics are now being operated in West Virginia and praised the splendid cooperation of the lay public in this work. The papers presented by Drs. Dyer and Gerhardt were discussed by Drs. A. C. Van Reenan, E. L. Gage, H. G. Steele, C. M. Scott, and M. W. Sinclair.

The following cancer control committee was appointed by Dr. A. C. Van Reenan, the president: C. M. Scott, chairman, and M. W. Sinclair and S. G. Davidson, all of Bluefield.

—FRANK J. HOLROYD, M. D.,
Secretary.

* * *

MONONGALIA COUNTY

Dr. R. R. Nairn, of Pittsburgh, was the guest speaker at the regular monthly meeting of the Monongalia County Medical Society, held November 5 at the Hotel Morgan, in Morgantown. He spoke on the subject of "Office Gynecology."

Doctor Nairn stressed the necessity of history-taking and physical examinations. He spoke of four common complaints of gynecological patients and their causes: (1) Menorrhagia, (2) Post-Menopausal bleeding, (3) Dysmenorrhea, and (4) Backache. Heat, pessaries, cauterization, and posterior massage were named by the speaker as the four common treatments used in gynecology. Dr. Nairn's paper was discussed by Drs. C. B. Pride, Truman Thompson, Park Johnson, Margaret Stemple, and C. C. Romine.

—MARGARET STEMPLE, M. D.,
Secretary.

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1. Am. J. Dis. Child. 66:1 (July) 1943.

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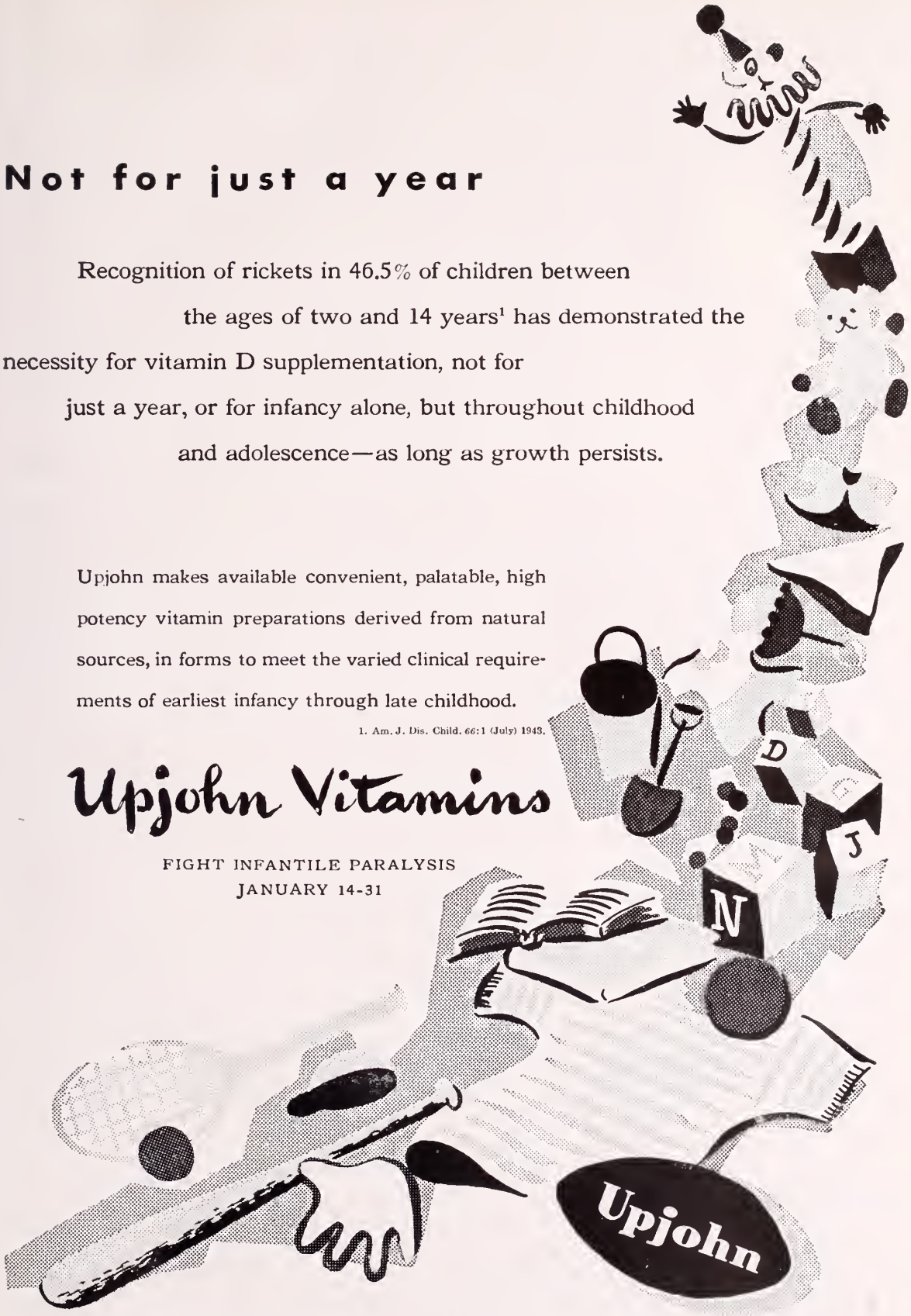

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Rachitic changes were present as late as the fourteenth year, and the incidence was higher among children dying from acute disease than in those dying of chronic disease.

The authors conclude, "We doubt if slight degrees of rickets, such as we found in many of our children, interfere with health and development, but our studies as a whole afford reason to prolong administration of vitamin D to the age limit of our study, the fourteenth year, and especially indicate the necessity to suspect and to take the necessary measures to guard against rickets in sick children."

*R. H. Follis, D. Jackson, M. M. Eliot, and E. A. Park: Prevalence of rickets in children between two and fourteen years of age, Am. J. Dis. Child. 66:1-11, July 1943.

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The West Virginia MEDICAL JOURNAL

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